0201 - MiraClean™

SECTION 1: IDENTIFICATION

1.1 **GHS Product identifier:** 0201 - MiraClean™

1.2 **Recommended use of the chemical and restrictions on use:**

Relevant uses: Chemical cleaning products

Mild alkaline liquid cleaner for commercial car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 **Classification of the substance or mixture:**

29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Eye Dam. 1: Serious eye damage, Category 1, H318

Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 **Label elements:**

29 CFR 1910.1200:

Danger

**Hazard statements:**

Eye Dam. 1: H318 - Causes serious eye damage

Skin Irrit. 2: H315 - Causes skin irritation

**Precautionary statements:**

P264: Wash thoroughly after use

P280: Wear protective gloves/protective clothing/eye protection/face protection

P302+P352: IF ON SKIN: Wash with plenty of soap and water

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310: Immediately call a poison center/doctor

P332+P313: If skin irritation occurs: Get medical advice/attention

2.3 **Other hazards which do not result in classification:**

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 **Substances:**

Non-applicable

3.2 **Mixtures:**

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 6834-92-0</td>
<td>Sodium Metasilicate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>Sodium xylenesulphonate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2: H319 - Warning</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases, see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.
### SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.3 **Special protective equipment and precautions for fire-fighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures:**

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 **Environmental precautions:**

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 **Methods and materials for containment and cleaning up:**

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 **Reference to other sections:**

See sections 8 and 13.

### SECTION 7: HANDLING AND STORAGE

7.1 **Precautions for safe handling:**

**A.** Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

**B.** Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

**C.** Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

**D.** Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 **Conditions for safe storage, including any incompatibilities:**

**A.** Technical measures for storage

Minimum Temp.:  -4 ºF  
Maximum Temp.:  120 ºF

**B.** General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 **Specific end use(s):**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>240 mg/m³</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td></td>
</tr>
</tbody>
</table>

### 8.2 Appropriate engineering controls:

#### A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

#### B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

#### C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Hand Icon" /></td>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

#### D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Eye Icon" /></td>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

#### E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Suit Icon" /></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td><img src="image" alt="Shoe Icon" /></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

#### F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Green
- Odor: Solvent
- Odour threshold: Non-applicable *

Vollatility:
- Boiling point at atmospheric pressure: 217 ºF
- Vapour pressure at 68 ºF: 2327 Pa
- Vapour pressure at 122 ºF: 91.98 (12.26 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

Product description:
- Density at 68 ºF: 1057.9 kg/m³
- Relative density at 68 ºF: 1.058
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: 12.5 - 13.5 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Completely miscible
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

Flammability:
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 ºF: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral</td>
<td>1414 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal</td>
<td>1050 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>11 mg/L (4 h)</td>
</tr>
<tr>
<td>Sodium xylenesulphonate</td>
<td>LD50 oral</td>
<td>7200 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50</td>
<td>1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>LC50</td>
<td>210 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>216 mg/L (96 h)</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 1</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA) : 2-butoxyethanol ; Sodium Metasilicate ; 4-Nonylphenol, branched, ethoxylated ;
   Sodium xylenesulphonate
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
   New York RTK - Substance list: 2-butoxyethanol
   Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
   CANADA-Domestic Substances List (DSL): 2-butoxyethanol ; Sodium Metasilicate ; 4-Nonylphenol, branched, ethoxylated ;
   Sodium xylenesulphonate
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: 2-butoxyethanol
   Rhode Island - Hazardous substances RTK: 2-butoxyethanol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Met. Corr. 1: H290 - May be corrosive to metals
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Other information:
The information relates to this specific material. It may not be valid for this material if used in combination with any other materials or in any process. CSI (Cleaning Systems, Incorporated) makes no warranty, express or implied, as to the accuracy or completeness or adequacy of information herein, except that such information is to the best of CSI's belief, accurate as of the date indicated. CSI assumes no responsibility for injury from the use of the product described herein.

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 0350 - Off-The-Wall®

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Liquid alkaline detergent solution for cleaning vehicle wash walls and equipment
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Repr. 1B: Reproductive toxicity, Category 1B, H360
Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Repr. 1B: H360 - May damage fertility or the unborn child
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P201: Obtain special instructions before use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P330: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P306+P313: IF exposed or concerned: Get medical advice/attention
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; Alkyl Imino dipropionic Acid, Monosodium Salt; Disodium tetraborate decahydrate

Acute Toxicity Estimate (ATE mix):
14.39 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>Skin Corr. 1A; H314 - Danger 5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Acute Tox. 4; H302; Eye Dam. 1; H318 - Danger &lt;5 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Alkyl imino dipropionic Acid, Monosodium Salt</td>
<td>Eye Dam. 1; H318; Skin Irrit. 2; H315 - Danger &lt;5 %</td>
</tr>
<tr>
<td>CAS: 1303-96-4</td>
<td>Disodium tetraborate decahydrate</td>
<td>Repr. 1B; H360 - Danger &lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:
This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)
Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.
B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
PREGNANT WOMEN SHOULD NOT BE EXPOSED TO THIS PRODUCT. Transfer in fixed places that comply with the necessary security conditions (emergency showers and eyewash stations in close proximity), using personal protection equipment, especially on the hands and face (See section 8). Limit manual transfers to containers of small amounts. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

- CONTINUED ON NEXT PAGE -
SECTION 7: HANDLING AND STORAGE (continued)

A. - Technical measures for storage
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F

B. - General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
   Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>Glycerol</td>
<td>8-hour TWA PEL 5 mg/m³</td>
</tr>
<tr>
<td>CAS: 56-81-5</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. - Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mandatory hand protection</strong></td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mandatory face protection</strong></td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Amber
- Odor: Pungent
- Odour threshold: Non-applicable *

**Volutility:**
- Boiling point at atmospheric pressure: 212 ºF
- Vapour pressure at 68 ºF: 2350 Pa
- Vapour pressure at 122 ºF: 92.87 (12.38 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1134.8 kg/m³
- Relative density at 68 ºF: 1.135
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non-Flammable (>199.4 °F)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: Non-applicable *
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:
A- Ingestion (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: May damage fertility or the unborn child

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicity information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Alkyl Imino dipropionic Acid, Monosodium Salt</td>
<td>LD50 oral 31500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Disodium tetaborate decahydrate</td>
<td>LD50 oral 4500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 1303-96-4</td>
<td>LD50 dermal 10000 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
</table>
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Route</th>
<th>Oral</th>
<th>Dermal</th>
<th>Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>36428.51 mg/kg (Calculation method)</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
</tr>
<tr>
<td></td>
<td>14.39 %</td>
<td>Non-applicable</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>LC50</th>
<th>EC50</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>189 mg/L (48 h)</td>
<td>33 mg/L</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>121 mg/L (96 h)</td>
<td>140 mg/L (48 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alkyl Imino dipropionic Acid, Monosodium Salt</td>
<td>4.2 mg/L (96 h)</td>
<td>5.7 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disodium tetraborate decahydrate</td>
<td>178 mg/L (72 h)</td>
<td>1085 mg/L (48 h)</td>
<td>Carassius auratus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1303-86-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Imino dipropionic Acid, Monosodium Salt</td>
<td>BOD5</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Non-applicable</td>
<td>10 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>Non-applicable</td>
<td>28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>% Biodegradable</td>
</tr>
<tr>
<td></td>
<td>Non-applicable</td>
<td>95 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -13</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>Moist soil</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:

Date of compilation: 3/29/2019            Version: 1
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

- CONTINUED ON NEXT PAGE -
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; Alkyl Imino dipropionic Acid, Monosodium Salt; Disodium tetraborate decahydrate
Massachusetts RTK - Substance List: Sodium hydroxide
New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide; Disodium tetraborate decahydrate
New York RTK - Substance List: Sodium hydroxide; Disodium tetraborate decahydrate
Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide; Disodium tetraborate decahydrate
CANADA-Domestic Substances List (DSL): Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; Alkyl Imino dipropionic Acid, Monosodium Salt; Disodium tetraborate decahydrate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Sodium hydroxide; Disodium tetraborate decahydrate
Rhode Island - Hazardous substances RTK: Sodium hydroxide; Disodium tetraborate decahydrate
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H360: May damage fertility or the unborn child

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Repr. 1B: H360 - May damage fertility or the unborn child
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
### SECTION 16: OTHER INFORMATION (continued)

IMDG: International maritime dangerous goods code  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organisation  
COD: Chemical Oxygen Demand  
BOD5: 5-day biochemical oxygen demand  
BCF: Bioconcentration factor  
LD50: Lethal Dose 50  
CL50: Lethal Concentration 50  
EC50: Effective concentration 50  
Log-POW: Octanol-water partition coefficient  
Koc: Partition coefficient of organic carbon  

**Other information:**  
The information relates to this specific material. It may not be valid for this material if used in combination with any other materials or in any process. CSI (Cleaning Systems, Incorporated) makes no warranty, express or implied, as to the accuracy or completeness or adequacy of information herein, except that such information is to the best of CSI's belief, accurate as of the date indicated. CSI assumes no responsibility for injury from the use of the product described herein.
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 0445 - Bug Goo®

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Liquid detergent for use as an insect remover in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Eye Dam. 1: H318 - Causes serious eye damage
   Skin Irrit. 2: H315 - Causes skin irritation

   Precautionary statements:
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P302+P352: IF ON SKIN: Wash with plenty of soap and water
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor
   P332+P313: If skin irritation occurs: Get medical advice/attention

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:
   Chemical description: Aqueous mixture composed of chemical products for cleaning products
   Components: - CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohols, Phosphate Ester</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Skin Corr. 1B: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>Potassium hydroxide</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Skin Corr. 1A: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

- CONTINUED ON NEXT PAGE -
### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL: 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>Glycerol</td>
<td>8-hour TWA PEL: 5 mg/m³</td>
</tr>
<tr>
<td>CAS: 56-81-5</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

#### 8.2 Appropriate engineering controls:

**A.** Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

**B.** Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

**C.** Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Hand Protection Pictogram" /></td>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

**D.** Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Face Protection Pictogram" /></td>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

**E.** Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

**F.** Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

**Environmental exposure controls:**
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Viscous
- Color: Yellow
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 212 ºF
- Vapour pressure at 68 ºF: 2350 Pa
- Vapour pressure at 122 ºF: 92.87 (12.38 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1063.2 kg/m³
- Relative density at 68 ºF: 1.063
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: >20.5 cSt
- Concentration: Non-applicable *
- pH: >13
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: Non-applicable *
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 ºF: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide</td>
<td>LD50 oral 388 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Ethoxylated Alcohol</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Ethoxylated Alcohols, Phosphate Ester</td>
<td>LD50 oral 3950 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>LC50 80 mg/L (48 h)</td>
<td>Gambussia afinis</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>BCF</th>
<th>Pow Log</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>2</td>
<td>-13</td>
<td>Low</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Koc</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>1046</td>
<td>Low</td>
<td>Dry soil</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Surface tension</td>
<td>Non-applicable</td>
<td>Moist soil</td>
<td>No</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Transport of dangerous goods by air:
   With regard to IATA/ICAO 2019:
   14.1 UN number: Non-applicable
   14.2 UN proper shipping name: Non-applicable
   14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
   14.4 Packing group, if applicable: Non-applicable
   14.5 Environmental hazard: No
   14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
   14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA): Tetrasodium ethylenediaminetetraacetate; Ethoxylated Alcohols, Phosphate Ester;
   Potassium hydroxide; Ethoxylated Alcohol
   Massachusetts RTK - Substance List: Potassium hydroxide
   New Jersey Worker and Community Right-to-Know Act: Potassium hydroxide
   New York RTK - Substance list: Potassium hydroxide
   Pennsylvania Worker and Community Right-to-Know Law: Potassium hydroxide
   CANADA-Domestic Substances List (DSL): Tetrasodium ethylenediaminetetraacetate; Ethoxylated Alcohols, Phosphate Ester;
   Potassium hydroxide; Ethoxylated Alcohol
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Potassium hydroxide
   Rhode Island - Hazardous substances RTK: Potassium hydroxide
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Potassium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
product.

Other legislation:
SECTION 15: REGULATORY INFORMATION (continued)

The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).

END OF SAFETY DATA SHEET
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 0602 - The Answer®

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products

Liquid low pH detergent mixture for commercial car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Eye Dam. 1: Serious eye damage, Category 1, H318
Flam. Liq. 4: Flammable liquids, Category 4, H227
Skin Corr. 1B: Skin corrosion, Category 1B, H314
Skin Sens. 1: Sensitisation, skin, Category 1, H317

2.2 Label elements:

29 CFR 1910.1200:

Danger

Hazard statements:

Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Sens. 1: H317 - May cause an allergic skin reaction

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P330: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P370+P378: In case of fire: Use ABC powder extinguisher to put it out
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification

Glycollic acid; d-limonene; Ethoxylated Alcohols, Phosphate Ester; 4-Nonylphenol, branched, ethoxylated

Acute Toxicity Estimate (ATE mix):

14.66 % (oral), 40.51 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

Additional labeling:
### SECTION 2: HAZARD(S) IDENTIFICATION (continued)

- Keep out of the reach of children

#### 2.3 Hazards not otherwise classified (HNOC):

- Non-applicable

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substances:**

- Non-applicable

**3.2 Mixtures:**

- **Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 79-14-1</td>
<td>Glycollic acid</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H332; Eye Dam. 1: H318; Skin Corr. 1B: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>d-limonene</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td></td>
<td>Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohols, Phosphate Ester</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Skin Corr. 1B: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Irrit. 2: H319 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 112-34-5</td>
<td>2-[2-butoxyethoxy]ethanol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2: H319; Flam. Liq. 4: H227 - Warning</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

### SECTION 4: FIRST-AID MEASURES

**4.1 Description of necessary measures:**

Request medical assistance immediately, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

**4.2 Most important symptoms/effects, acute and delayed:**

- CONTINUED ON NEXT PAGE -
SECTION 4: FIRST-AID MEASURES (continued)

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Combustible liquid. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use full jet water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment.
Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spill product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent.
Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
SECTION 7: HANDLING AND STORAGE (continued)

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for conditions and materials that should be avoided.

C. Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A. Technical measures for storage

Minimum Temp.: -4 °F

Maximum Temp.: 120 °F

B. General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

Minimum Temp.: -4 ºF

Maximum Temp.: 120 ºF

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

There are no occupational exposure limits for the substances contained in the product

8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

Pictogram | PPE | Remarks
--- | --- | ---
Mandatory hand protection | Protective gloves against minor risks | Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

Pictogram | PPE | Remarks
--- | --- | ---
Mandatory face protection | Panoramic glasses against splash/projections. | Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

**National volatile organic compound emission standards (40 CFR Part 59):**

- V.O.C. (Subpart C - Consumer): 17.4 % weight
- V.O.C. (Coatings) at 68 ºF: 180.81 kg/m³ (180.81 g/L)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**

- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Turquoise
- Odor: Citric
- Odour threshold: Non-applicable *

**Vaporability:**

- Boiling point at atmospheric pressure: 238 ºF
- Vapour pressure at 68 ºF: 2246 Pa
- Vapour pressure at 122 ºF: 11837.08 Pa (11.84 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**

- Density at 68 ºF: 1039.2 kg/m³
- Relative density at 68 ºF: 1.039
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: >2 - 3 at 100 %

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: 160 °F (ASTM D-92)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 400 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

**Other information:**
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Risk of combustion</td>
<td>Avoid direct impact</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
   - Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
   - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
     IARC: Brilliant blue FCF (C.I.4290/C.I.Acid Blue 9) (3); d-limonene (3)
   - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
   - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
   - Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:
   Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
   - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
   Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-limonene</td>
<td>LD50 oral</td>
<td>4400 mg/kg</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>LD50 dermal</td>
<td>5100 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>
### Section 11: Toxicological Information (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Ethoxylated Alcohols, Phosphate Ester</td>
<td>LD50 oral 3950 mg/kg Rat</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Glycollic acid</td>
<td>LD50 oral 2040 mg/kg Rat</td>
<td></td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h) (ATEi)</td>
<td></td>
</tr>
</tbody>
</table>

**Acute Toxicity Estimate (ATE mix):**

| Oral                                   | 9563.09 mg/kg (Calculation method) | 14.66 %        |
| Dermal                                 | >5000 mg/kg (Calculation method)   | Non-applicable |
| Inhalation                             | 44.1 mg/L (4 h) (Calculation method) | 40.51 %        |

### Section 12: Ecological Information

The experimental information related to the eco-toxicological properties of the product itself is not available.

#### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>LC50 164 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>EC50 141 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 44 mg/L (72 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
<tr>
<td>d-limonene</td>
<td>LC50 0.702 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>EC50 0.577 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>LC50 84.7 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>EC50 23 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 19.5 mg/L (72 h)</td>
<td>Desmodesmus subspicatus</td>
<td>Algae</td>
</tr>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>LC50 1300 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 112-34-5</td>
<td>EC50 2850 mg/L (24 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 53 mg/L (192 h)</td>
<td>Microcystis aeruginosa</td>
<td>Algae</td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>BOD5</th>
<th>COD</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>Non-applicable</td>
<td>Concentration 100 mg/L</td>
<td></td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>Non-applicable</td>
<td>Period 14 days</td>
<td></td>
</tr>
<tr>
<td>d-limonene</td>
<td>Non-applicable</td>
<td>Concentration Non-applicable</td>
<td></td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>Non-applicable</td>
<td>Period 28 days</td>
<td></td>
</tr>
<tr>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>Non-applicable</td>
<td>Concentration Non-applicable</td>
<td></td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>Non-applicable</td>
<td>Period 28 days</td>
<td></td>
</tr>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>Non-applicable</td>
<td>Concentration 100 mg/L</td>
<td></td>
</tr>
<tr>
<td>CAS: 112-34-5</td>
<td>0.25 g O2/g</td>
<td>Period 28 days</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid 79-14-1, CAS: 79-14-1</td>
<td>BCF 3</td>
</tr>
<tr>
<td>Pow Log -1.11</td>
<td>Potential Low</td>
</tr>
<tr>
<td>d-limonene 5989-27-5, CAS: 5989-27-5</td>
<td>BCF 660</td>
</tr>
<tr>
<td>Pow Log 4.83</td>
<td>Potential High</td>
</tr>
<tr>
<td>4-Nonylphenol, branched, ethoxylated 127087-87-0, CAS: 127087-87-0</td>
<td>BCF 8</td>
</tr>
<tr>
<td>Pow Log 5.67</td>
<td>Potential Low</td>
</tr>
<tr>
<td>2-(2-butoxyethoxy)ethanol 112-34-5, CAS: 112-34-5</td>
<td>BCF 0.46</td>
</tr>
<tr>
<td>Pow Log 0.56</td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-limonene 5989-27-5, CAS: 5989-27-5</td>
<td>Koc 6324</td>
<td>Henry 2533.13 Pa m³/mol</td>
</tr>
<tr>
<td>Conclusion Immobile</td>
<td>Dry soil Yes</td>
<td></td>
</tr>
<tr>
<td>Surface tension 2.67E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
<td></td>
</tr>
<tr>
<td>4-Nonylphenol, branched, ethoxylated 127087-87-0, CAS: 127087-87-0</td>
<td>Koc 427</td>
<td>Henry Non-applicable</td>
</tr>
<tr>
<td>Conclusion Low</td>
<td>Dry soil Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Surface tension Non-applicable</td>
<td>Moist soil Non-applicable</td>
<td></td>
</tr>
<tr>
<td>2-(2-butoxyethoxy)ethanol 112-34-5, CAS: 112-34-5</td>
<td>Koc 48</td>
<td>Henry 7.2E-9 Pa m³/mol</td>
</tr>
<tr>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
<td></td>
</tr>
<tr>
<td>Surface tension 3.95E-2 N/m (77 °F)</td>
<td>Moist soil No</td>
<td></td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:
## SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>Section</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: UN1993</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Combustible liquid, n.o.s. (d-limonene)</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): 3</td>
</tr>
<tr>
<td></td>
<td>Labels: 3</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: III</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

### Transport of dangerous goods by sea:

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>Section</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

### Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>Section</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

## SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-(2-butoxyethoxy)ethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA) : Glycollic acid ; d-limonene ; Ethoxylated Alcohols, Phosphate Ester ; 2-(2-butoxyethoxy)ethanol
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: Non-applicable
New York RTK - Substance list: Non-applicable
Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
CANADA-Domestic Substances List (DSL): Glycollic acid ; d-limonene ; Ethoxylated Alcohols, Phosphate Ester ; 2-(2-butoxyethoxy)ethanol
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Non-applicable
Rhode Island - Hazardous substances RTK: Non-applicable
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage
H317: May cause an allergic skin reaction
H227: Combustible liquid
H314: Causes severe skin burns and eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H332 - Harmful if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 3: H226 - Flammable liquid and vapour
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
Skin Sens. 1: H317 - May cause an allergic skin reaction

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
### SECTION 16: OTHER INFORMATION (continued)

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 **GHS Product identifier:** 0607 - Launch™ - Low pH Presoak

1.2 **Recommended use of the chemical and restrictions on use:**

   Relevant uses: Chemical cleaning products
   Liquid low pH detergent mixture for commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**

   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 **Classification of the substance or mixture:**

   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 **Label elements:**

   29 CFR 1910.1200:
   Danger

   **Hazard statements:**
   Eye Dam. 1: H318 - Causes serious eye damage
   Skin Irrit. 2: H315 - Causes skin irritation

   **Precautionary statements:**
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P302+P352: IF ON SKIN: Wash with plenty of soap and water
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor
   P332+P313: If skin irritation occurs: Get medical advice/attention

2.3 **Other hazards which do not result in classification:**

   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 **Substances:**

   Non-applicable

3.2 **Mixtures:**

   **Chemical description:** Aqueous mixture composed of chemical products for cleaning products

   **Components:**

   - CONTINUED ON NEXT PAGE -
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Surfactant Mixture</td>
<td>5 - &lt;10%</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>Glycollic acid</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>CAS: 112-34-5</td>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>CAS: 7664-38-2</td>
<td>Phosphoric acid</td>
<td>&lt;5%</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

**SECTION 4: FIRST-AID MEASURES**

4.1 **Description of necessary measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 **Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

4.3 **Indication of immediate medical attention and special treatment needed, if necessary:**

Non-applicable

**SECTION 5: FIRE-FIGHTING MEASURES**

5.1 **Suitable (and unsuitable) extinguishing media:**

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 **Specific hazards arising from the chemical:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.
SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>240 mg/m³</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td>8-hour TWA PEL 1 mg/m³ Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>CAS: 7664-38-2</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

- Mandatory hand protection
  - Protective gloves against minor risks
  - Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)
  - As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

- Mandatory face protection
  - Panoramic glasses against splash/projections
  - Clean daily and disinfect periodically according to the manufacturer’s instructions.
  - Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)

E. - Bodily protection

- Work clothing
  - Replace before any evidence of deterioration.

- Anti-slip work shoes
  - Replace before any evidence of deterioration.

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Red
- Odor: Solvent
- Odour threshold: Non-applicable *

Volatility:
- Boiling point at atmospheric pressure: 217 ºF
- Vapour pressure at 68 ºF: 2330 Pa
- Vapour pressure at 122 ºF: 92.1 (12.28 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

Product description:
- Density at 68 ºF: 1041 kg/m³
- Relative density at 68 ºF: 1.041
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: <3
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

Flammability:
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 400 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 ºF: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Contact with air</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Increase in temperature</td>
<td>Precaution</td>
</tr>
<tr>
<td>Sunlight</td>
<td>Precaution</td>
</tr>
<tr>
<td>Humidity</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Material</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acids</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Oxidising materials</td>
<td>Precaution</td>
</tr>
<tr>
<td>Combustible materials</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Others</td>
<td>Avoid alkalies or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3); E-caprolactam (4)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Phosphoric acid CAS: 7664-38-2</td>
<td>LD50 oral 1250 mg/kg</td>
<td>Mouse</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 2740 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Glycollic acid CAS: 79-14-1</td>
<td>LD50 oral 2040 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h) (ATEi)</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid CAS: 79-14-1</td>
<td>LC50 164 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 141 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 44 mg/L (72 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>2-(2-butoxyethoxy)ethanol CAS: 112-34-5</td>
<td>LC50 1300 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 2850 mg/L (24 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 53 mg/L (192 h)</td>
<td>Microcystis aeruginosa</td>
<td>Algae</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>BOD5</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>COD</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5</td>
<td>0.71 g O2/g</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD</td>
<td>2.2 g O2/g</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>0.32</td>
</tr>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>BOD5</td>
<td>0.25 g O2/g</td>
</tr>
<tr>
<td>CAS: 112-34-5</td>
<td>COD</td>
<td>2.08 g O2/g</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>0.12</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>Pow Log -1.11</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>BCF 0.46</td>
</tr>
<tr>
<td>CAS: 112-34-5</td>
<td>Pow Log 0.56</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.72E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>Koc 48</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 112-34-5</td>
<td>Conclusion Very High</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Surface tension 3.36E-2 N/m (77 °F)</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:
**SECTION 14: TRANSPORT INFORMATION (continued)**

<table>
<thead>
<tr>
<th>14.1</th>
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<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
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</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

<table>
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<tr>
<th>14.1</th>
<th>UN number:</th>
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</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**SECTION 15: REGULATORY INFORMATION**

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol; 2-(2-butoxyethoxy)ethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Glycollic acid; 2-butoxyethanol; 2-(2-butoxyethoxy)ethanol; Phosphoric acid
Massachusetts RTK - Substance List: Phosphoric acid
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol; Phosphoric acid
New York RTK - Substance list: 2-butoxyethanol; Phosphoric acid
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol; Phosphoric acid
CANADA-Domestic Substances List (DSL): Glycollic acid; 2-butoxyethanol; 2-(2-butoxyethoxy)ethanol; Phosphoric acid
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol; Phosphoric acid
Rhode Island - Hazardous substances RTK: 2-butoxyethanol; Phosphoric acid
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Phosphoric acid (5000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled
Acute Tox. 4: H332 - Harmful if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Met. Corr. 1: H290 - May be corrosive to metals
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).

END OF SAFETY DATA SHEET
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 0610 - RipTide™

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products

Liquid low pH detergent mixture for commercial car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States

Phone.: 9203372175 - Fax: 9203379410

chemcompliance@cleaningsystemsinc.com

http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Carc. 2: Carcinogenicity, Category 2, H351

Eye Dam. 1: Serious eye damage, Category 1, H318

Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:

29 CFR 1910.1200:

Danger

Hazard statements:

Carc. 2: H351 - Suspected of causing cancer
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:

P201: Obtain special instructions before use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313: IF exposed or concerned: Get medical advice/attention
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification

Surfactant Mixture ; Phosphoric acid; Sulphuric acid; Sulphamidic acid

Acute Toxicity Estimate (ATE mix):

10.4 % (oral), 14.6 % (dermal), 17.6 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- CONTINUED ON NEXT PAGE -
### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

#### 3.1 Substances:
Non-applicable

#### 3.2 Mixtures:

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Surfactant Mixture</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>Acute Tox. 4: H302+H332; Eye Dam. 1: H318; Skin Corr. 1A: H314 - Danger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 7664-38-2</td>
<td>Phosphoric acid</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>Acute Tox. 4: H302; Met. Corr. 1: H290; Skin Corr. 1B: H314 - Danger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 7664-93-9</td>
<td>Sulphuric acid</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>Skin Corr. 1A: H314 - Danger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 5329-14-6</td>
<td>Sulphamidic acid</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>Carc. 2: H351; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

### SECTION 4: FIRST-AID MEASURES

#### 4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

#### 4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

#### 4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable
SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
SECTION 7: HANDLING AND STORAGE (continued)

Minimum Temp.: -4 ºF
Maximum Temp.: 120 ºF

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphuric acid</td>
<td></td>
</tr>
<tr>
<td>CAS: 7664-93-9</td>
<td>8-hour TWA PEL 1 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td></td>
</tr>
<tr>
<td>CAS: 7664-38-2</td>
<td>8-hour TWA PEL 1 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Orange
- Odor: Solvent
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 221 ºF
- Vapour pressure at 68 ºF: 2311 Pa
- Vapour pressure at 122 ºF: 91.35 (12.18 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1055 kg/m³
- Relative density at 68 ºF: 1.055
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: <1
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

Date of compilation: 4/2/2019            Version: 1
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 ºF: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td></td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Category</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
<td></td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.
  IARC: 2-butoxyethanol (3); Amides, coco, N,N-bis(hydroxyethyl) (2B); Diethanolamine (2B)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid CAS: 7664-38-2</td>
<td>LD50 oral 1250 mg/kg</td>
<td>Mouse</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 2740 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Sulphamidic acid CAS: 5329-14-6</td>
<td>LD50 oral 3160 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphuric acid</td>
<td>LD50 oral 2140 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 7664-93-9</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>LD50 oral 12200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>14573.3 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>17081 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>171.03 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>Sulphamidic acid</td>
<td>LC50 70.3 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 5329-14-6</td>
<td>EC50 Non-applicable</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>LC50 3.6 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>EC50 4.2 mg/L (34 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 2.2 mg/L (96 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32 %</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 2</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN3264
14.2 UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN3264
14.2 UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN3264
14.2 UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol ; Sulphuric acid
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA): 2-butoxyethanol ; Phosphoric acid ; Sulphuric acid ; Sulphamidic acid ; Amides, coco, N,N-bis(hydroxyethyl)
   Massachusetts RTK - Substance List: Phosphoric acid ; Sulphuric acid
   New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol ; Phosphoric acid ; Sulphuric acid ; Sulphamidic acid
   New York RTK - Substance list: 2-butoxyethanol ; Phosphoric acid ; Sulphuric acid ; Sulphamidic acid
   Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol ; Phosphoric acid ; Sulphuric acid ; Sulphamidic acid
   CANADA-Domestic Substances List (DSL): 2-butoxyethanol ; Phosphoric acid ; Sulphuric acid ; Sulphamidic acid ; Amides, coco, N,N-bis(hydroxyethyl)
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Sulphuric acid
   Minnesota - Hazardous substances ERTK: 2-butoxyethanol ; Phosphoric acid ; Sulphuric acid
   Rhode Island - Hazardous substances RTK: 2-butoxyethanol ; Phosphoric acid ; Sulphuric acid
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Phosphoric acid (5000 pounds) ; Sulphuric acid (1000 pounds)

Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
   This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
   H314: Causes severe skin burns and eye damage
   H318: Causes serious eye damage
   H351: Suspected of causing cancer

Texts of the legislative phrases mentioned in section 3:
   The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3
### SECTION 16: OTHER INFORMATION (continued)

| Acute Tox. 4: H302 - Harmful if swallowed |
| Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled |
| Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled |
| Carc. 2: H351 - Suspected of causing cancer |
| Eye Dam. 1: H318 - Causes serious eye damage |
| Eye Irrit. 2: H319 - Causes serious eye irritation |
| Flam. Liq. 4: H227 - Combustible liquid |
| Met. Corr. 1: H290 - May be corrosive to metals |
| Skin Corr. 1A: H314 - Causes severe skin burns and eye damage |
| Skin Corr. 1B: H314 - Causes severe skin burns and eye damage |
| Skin Irrit. 2: H315 - Causes skin irritation |

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

- Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 0803 - White Line Plus®

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Liquid alkaline cleaner for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Corr. 1A: Skin corrosion, Category 1A, H314
   Skin Sens. 1: Sensitisation, skin, Category 1, H317

2.2 Label elements:
   29 CFR 1910.1200:
   Danger
   !

   Hazard statements:
   Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
   Skin Sens. 1: H317 - May cause an allergic skin reaction

   Precautionary statements:
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   P302+P352: IF ON SKIN: Wash with plenty of soap and water
   P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor
   P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

   Substances that contribute to the classification
   Sodium Metasilicate; d-limonene; Potassium hydroxide; Sodium hydroxide

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 6834-92-0</td>
<td>Sodium Metasilicate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 5889-27-5</td>
<td>d-limonene</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By Inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By Skin Contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By Eye Contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By Ingestion/Aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spill product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. Technical recommendations for the prevention of fires and explosions
Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for conditions and materials that should be avoided.

C. Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B. General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
SECTION 7: HANDLING AND STORAGE (continued)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>3 ppm</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, ...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure</td>
</tr>
<tr>
<td>protection</td>
<td></td>
<td>to the product for professional/industrial users, we recommend using chemical</td>
</tr>
<tr>
<td></td>
<td></td>
<td>protection gloves. Use gloves in accordance with manufacturer’s use limitations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
<tr>
<td>protection</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

F. Additional emergency measures

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Orange
- Odor: Citric
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 213 °F
- Vapour pressure at 68 °F: 2345 Pa
- Vapour pressure at 122 °F: 92.66 (12.35 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1068.2 kg/m³
- Relative density at 68 °F: 1.068
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: >13
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 458 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Incompatible Materials</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
  - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
  - Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
  - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
  - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
  - Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
  - Contact with the eyes: Produces serious eye damage after contact.

- CONTINUED ON NEXT PAGE -
D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Diethanolamine (2B); d-limonene (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-limonene CAS: 5989-27-5</td>
<td>LD50 oral 4400 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 5100 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td>LC50 210 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 6834-92-0</td>
<td>EC50 216 mg/L (96 h)</td>
<td>Daphnia magna</td>
<td>Crustean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d-limonene CAS: 5989-27-5</td>
<td>LC50 0.702 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 0.577 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-limonene</td>
<td>BOD5 Non-applicable</td>
<td>Concentration Non-applicable</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td>BOD5/COD</td>
<td>Non-applicable</td>
<td>% Biodegradable 100 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-limonene</td>
<td>BCF 660</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>Pow Log 4.83</td>
</tr>
<tr>
<td></td>
<td>Potential High</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-limonene</td>
<td>Koc 6324</td>
<td>Henry 2533.13 Pa m³/mol</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>Conclusion Immobile</td>
<td>Dry soil Yes</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.675E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment: Non-applicable

12.6 Other adverse effects:

This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN3266
14.2 UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate)
14.3 Transport hazard class(es): 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN3266
14.2 UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: UN3266
14.2 UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA): Sodium Metasilicate; d-limonene
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: Non-applicable
   New York RTK - Substance list: Non-applicable
   Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
   CANADA-Domestic Substances List (DSL): Sodium Metasilicate; d-limonene
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Non-applicable
   Rhode Island - Hazardous substances RTK: Non-applicable
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
SECTION 15: REGULATORY INFORMATION (continued)

The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H317: May cause an allergic skin reaction

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Eye Dam. 1: H318 - Causes serious eye damage
Flam. Liq. 3: H226 - Flammable liquid and vapour
Met. Corr. 1: H290 - May be corrosive to metals
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
Skin Sens. 1: H317 - May cause an allergic skin reaction
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
 SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1030 - Clear Solutions™ Drum Pack

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Granular alkaline cleaner for commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

 SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Met. Corr. 1: Corrosive to metals, Category 1, H290
   Skin Corr. 1B: Skin corrosion, Category 1B, H314
   STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

2.2 Label elements:
   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Met. Corr. 1: H290 - May be corrosive to metals
   Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
   STOT SE 3: H335 - May cause respiratory irritation

   Precautionary statements:
   P234: Keep only in original container
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   P303+P361+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   Substances that contribute to the classification
   Pentasodium triphosphate; Sodium Metasilicate; Surfactant Mixture; Tetrasodium ethylenediaminetetraacetate
   Acute Toxicity Estimate (ATE mix):
   41.95 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture</td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger 15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger 5 - &lt;10 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By Inhalation:
Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
B.- Technical recommendations for the prevention of fires and explosions
Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F
B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace
Nuisance dust: Inhalable dust 10 mg/m³ // Respirable dust 4 mg/m³

8.2 Appropriate engineering controls:
A. Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands
<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection
<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection
<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures
<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

- CONTINUED ON NEXT PAGE -
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Solid
Appearance: Granulated
Color: Green
Odor: Mild
Odour threshold: Non-applicable *

Vaporiness:
Boiling point at atmospheric pressure: Non-applicable *
Vapour pressure at 68 °F: Non-applicable *
Vapour pressure at 122 °F: Non-applicable *
Evaporation rate at 68 °F: Non-applicable *

Product description:
Density at 68 °F: 1933.8 kg/m³
Relative density at 68 °F: 1.934
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: Non-applicable *
Concentration: Non-applicable *
pH: >12.5 - 13.5 at 7 %
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non-applicable
Flammability (solid, gas): Non-applicable *
Autoignition temperature: Non-applicable *
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refractive index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

- CONTINUED ON NEXT PAGE -
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
 - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
 - Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
 - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
 - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
 - Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns.
 - Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
 - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
   - IARC: Non-applicable
 - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
 - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>1700 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>14057.69 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;5 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td>LC50 210 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 6834-92-0</td>
<td>EC50 216 mg/L (96 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

Not available

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log 0.13</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:
### SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

**12.5 Results of PBT and vPvB assessment:**
Non-applicable

**12.6 Other adverse effects:**
This product contains Phosphates.

### SECTION 13: DISPOSAL CONSIDERATIONS

**13.1 Disposal methods:**

**Waste management (disposal and evaluation):**
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

### SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

**With regard to 49 CFR on the Transport of Dangerous Goods:**

14.1 UN number: UN3262
14.2 UN proper shipping name: CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN3262
14.2 UN proper shipping name: CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: UN3262
14.2 UN proper shipping name: CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA) : Sodium Metasilicate ; Tetrasodium ethylenediaminetetraacetate
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: Non-applicable
   New York RTK - Substance list: Non-applicable
   Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
   CANADA-Domestic Substances List (DSL): Sodium Metasilicate ; Tetrasodium ethylenediaminetetraacetate
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Non-applicable
   Rhode Island - Hazardous substances RTK: Non-applicable
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
SECTION 15: REGULATORY INFORMATION (continued)

The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage
H290: May be corrosive to metals
H335: May cause respiratory irritation
H314: Causes severe skin burns and eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Met. Corr. 1: H290 - May be corrosive to metals
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1050 - Granular Base™

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products
Granular alkaline cleaner for commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Met. Corr. 1: Corrosive to metals, Category 1, H290
Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:

29 CFR 1910.1200:

Danger

Hazard statements:
Met. Corr. 1: H290 - May be corrosive to metals
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P234: Keep only in original container
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor

Substances that contribute to the classification
Pentasodium triphosphate; Sodium hydroxide; Sodium Metasilicate; Tetrasodium ethylenediaminetetraacetate

Acute Toxicity Estimate (ATE mix):
45.08 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 6834-92-0</td>
<td>Sodium Metasilicate</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>5 - &lt;10 %</td>
</tr>
</tbody>
</table>

Identification of trade secret: Non-applicable

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By Inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL 2 mg/m³</td>
</tr>
</tbody>
</table>

Nuisance dust: Inhalable dust 10 mg/m³ // Respirable dust 4 mg/m³

#### 8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mandatory hand protection" /></td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional / industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mandatory face protection" /></td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Work clothing" /></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td><img src="image" alt="Anti-slip work shoes" /></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Solid
Appearance: Granulated
Color: Green
Odor: Not available
Odour threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: Non-applicable *
Vapour pressure at 68 °F: Non-applicable *
Vapour pressure at 122 °F: Non-applicable *
Evaporation rate at 68 °F: Non-applicable *

Product description:
Density at 68 °F: 2262.6 kg/m³
Relative density at 68 °F: 2.263
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: Non-applicable *
Concentration: Non-applicable *
pH: 12.5 - 13.5 at 9 %
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non-applicable
Flammability (solid, gas): Non-applicable *
Autoignition temperature: Non-applicable *
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface tension at 68 °F</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Condition</th>
<th>Condition</th>
<th>Condition</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td>Contact with air</td>
<td>Increase in temperature</td>
<td>Sunlight</td>
<td>Humidity</td>
</tr>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Non-applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Category</th>
<th>Acid</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can react violently</td>
<td>Can react violently</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

**Dangerous health implications:**
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>15797.63 mg/kg (Calculation method) 45.08 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method) Non-applicable</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;5 mg/L (4 h) (Calculation method) Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>EC50 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>LC50 210 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 6834-92-0</td>
<td>EC50 216 mg/L (96 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate CAS: 64-02-8</td>
<td>BCF 2</td>
</tr>
<tr>
<td></td>
<td>Pow Log -13</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate CAS: 64-02-8</td>
<td>Koc 1046</td>
<td>Henry</td>
</tr>
<tr>
<td></td>
<td>Conclusion Low</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>Moist soil</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>UN1823</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>SODIUM HYDROXIDE, SOLID</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN1823
14.2 UN proper shipping name: SODIUM HYDROXIDE, SOLID
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: UN1823
14.2 UN proper shipping name: SODIUM HYDROXIDE, SOLID
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Sodium hydroxide; Sodium Metasilicate; Tetrasodium ethylenediaminetetraacetate
Massachusetts RTK - Substance List: Sodium hydroxide
New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide
New York RTK - Substance list: Sodium hydroxide
Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide
CANADA-Domestic Substances List (DSL): Sodium hydroxide; Sodium Metasilicate; Tetrasodium ethylenediaminetetraacetate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Sodium hydroxide
Rhode Island - Hazardous substances RTK: Sodium hydroxide
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)
SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage
H290: May be corrosive to metals
H314: Causes severe skin burns and eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Met. Corr. 1: H290 - May be corrosive to metals
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
1. GHS Product identifier: 1205 - The One Step® NC2™

2. Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Liquid alkaline cleaner for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

3. Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

4. Emergency phone number: 1-800-424-9300 or 1-703-527-3887

2. Classification of the substance or mixture:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Aquatic Acute 3: Hazardous to the aquatic environment, acute hazard, Category 3, H402
   Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Irrit. 2: Skin irritation, Category 2, H315
   Skin Sens. 1: Sensitisation, skin, Category 1, H317

2. Label elements:
   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects
   Eye Dam. 1: H318 - Causes serious eye damage
   Skin Irrit. 2: H315 - Causes skin irritation
   Skin Sens. 1: H317 - May cause an allergic skin reaction

   Precautionary statements:
   P261: Avoid breathing dust/fume/gas/mist/vapours/spray
   P264: Wash thoroughly after use
   P273: Avoid release to the environment
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P302+P352: IF ON SKIN: Wash with plenty of soap and water
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor
   P501: Dispose of contents and/or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

2. Other hazards which do not result in classification:
   Non-applicable

3. Substances:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Non-applicable

3.2 Mixtures:

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 127087-87-0</td>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>&lt;5%</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>&lt;5%</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>Sodium xylenesulphonate</td>
<td>&lt;5%</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2: H319 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>d-limonene</td>
<td>&lt;5%</td>
</tr>
<tr>
<td></td>
<td>Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.
SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the split product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:
Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F
SECTION 7: HANDLING AND STORAGE (continued)

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="Image" alt="Mandatory hand protection" /></td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="Image" alt="Mandatory face protection" /></td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 ºF: Liquid
Appearance: Transparent
Color: Yellow
Odor: Citric
Odour threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: 213 ºF
Vapour pressure at 68 ºF: 2346 Pa
Vapour pressure at 122 ºF: 92.71 (12.36 kPa)
Evaporation rate at 68 ºF: Non-applicable *

Product description:
Density at 68 ºF: 1059.9 kg/m³
Relative density at 68 ºF: 1.06
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: 12 - 13 at 100 %
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 458 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Avoid direct impact</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Produces skin inflammation.
   - Contact with the eyes: Produces serious eye damage after contact.
### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

**D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):**

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: d-limonene (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**E- Sensitizing effects:**

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

**F- Specific target organ toxicity (STOT) - single exposure:**

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**G- Specific target organ toxicity (STOT)-repeated exposure:**

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**H- Aspiration hazard:**

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**Other information:**

Non-applicable

*Specific toxicology information on the substances:*

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>d-limonene</strong>&lt;br&gt;CAS: 5989-27-5</td>
<td>LD50 oral 4400 mg/kg&lt;br&gt;LD50 dermal 5100 mg/kg&lt;br&gt;LC50 inhalation Non-applicable</td>
<td>Rat&lt;br&gt;Rabbit&lt;br&gt;Non-applicable</td>
</tr>
<tr>
<td><strong>Sodium xylenesulphonate</strong>&lt;br&gt;CAS: 1300-72-7</td>
<td>LD50 oral 7200 mg/kg&lt;br&gt;LD50 dermal Non-applicable&lt;br&gt;LC50 inhalation Non-applicable</td>
<td>Rat&lt;br&gt;Non-applicable&lt;br&gt;Non-applicable</td>
</tr>
<tr>
<td><strong>Tetrasodium ethylenediaminetetraacetate</strong>&lt;br&gt;CAS: 64-02-8</td>
<td>LD50 oral 1700 mg/kg&lt;br&gt;LD50 dermal Non-applicable&lt;br&gt;LC50 inhalation Non-applicable</td>
<td>Rat&lt;br&gt;Non-applicable&lt;br&gt;Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

**12.1 Ecotoxicity (aquatic and terrestrial, where available):**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tetrasodium ethylenediaminetetraacetate</strong>&lt;br&gt;CAS: 64-02-8</td>
<td>LC50 121 mg/L (96 h)&lt;br&gt;EC50 140 mg/L (48 h)&lt;br&gt;EC50 Non-applicable</td>
<td>Lepomis macrochirus&lt;br&gt;Daphnia magna&lt;br&gt;Crustacean</td>
<td></td>
</tr>
<tr>
<td><strong>d-limonene</strong>&lt;br&gt;CAS: 5989-27-5</td>
<td>LC50 0.702 mg/L (96 h)&lt;br&gt;EC50 0.577 mg/L (48 h)&lt;br&gt;EC50 Non-applicable</td>
<td>Pimephales promelas&lt;br&gt;Daphnia magna&lt;br&gt;Crustacean</td>
<td></td>
</tr>
</tbody>
</table>

**12.2 Persistence and degradability:**
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Bioavailability</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>d</em>-limonene</td>
<td>BOD5: Non-applicable</td>
<td>Concentration: Non-applicable</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>COD: Non-applicable</td>
<td>Period: 28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD: Non-applicable</td>
<td>% Biodegradable: 100%</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF: 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log: -13</td>
</tr>
<tr>
<td></td>
<td>Potential: Low</td>
</tr>
<tr>
<td><em>d</em>-limonene</td>
<td>BCF: 660</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>Pow Log: 4.83</td>
</tr>
<tr>
<td></td>
<td>Potential: High</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc: 1046</td>
<td>Henry: 0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion: Low</td>
<td>Dry soil: No</td>
</tr>
<tr>
<td></td>
<td>Surface tension: Non-applicable</td>
<td>Moist soil: No</td>
</tr>
<tr>
<td><em>d</em>-limonene</td>
<td>Koc: 6324</td>
<td>Henry: 2533.13 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>Conclusion: Immobile</td>
<td>Dry soil: Yes</td>
</tr>
<tr>
<td></td>
<td>Surface tension: 2.675E-2 N/m (77 ºF)</td>
<td>Moist soil: Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:
### SECTION 14: TRANSPORT INFORMATION (continued)

| 14.1 | UN number: | Non-applicable |
| 14.2 | UN proper shipping name: | Non-applicable |
| 14.3 | Transport hazard class(es): | Non-applicable |
|      | Labels: | Non-applicable |
| 14.4 | Packing group, if applicable: | Non-applicable |
| 14.5 | Environmental hazard: | No |
| 14.6 | Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
|      | Physico-Chemical properties: | see section 9 |
| 14.7 | Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

| 14.1 | UN number: | Non-applicable |
| 14.2 | UN proper shipping name: | Non-applicable |
| 14.3 | Transport hazard class(es): | Non-applicable |
|      | Labels: | Non-applicable |
| 14.4 | Packing group, if applicable: | Non-applicable |
| 14.5 | Environmental hazard: | No |
| 14.6 | Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
|      | Physico-Chemical properties: | see section 9 |
| 14.7 | Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

| 14.1 | UN number: | Non-applicable |
| 14.2 | UN proper shipping name: | Non-applicable |
| 14.3 | Transport hazard class(es): | Non-applicable |
|      | Labels: | Non-applicable |
| 14.4 | Packing group, if applicable: | Non-applicable |
| 14.5 | Environmental hazard: | No |
| 14.6 | Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
|      | Physico-Chemical properties: | see section 9 |
| 14.7 | Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

- CONTINUED ON NEXT PAGE -
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): 4-Nonylphenol, branched, ethoxylated; Tetrasodium ethylenediaminetetraacetate; Sodium xylene sulphonate; d-limonene
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: Non-applicable
New York RTK - Substance list: Non-applicable
Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
CANADA-Domestic Substances List (DSL): 4-Nonylphenol, branched, ethoxylated; Tetrasodium ethylenediaminetetraacetate; Sodium xylene sulphonate; d-limonene
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Non-applicable
Rhode Island - Hazardous substances RTK: Non-applicable
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage
H317: May cause an allergic skin reaction
H412: Harmful to aquatic life with long lasting effects
H402: Harmful to aquatic life

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 3: H226 - Flammable liquid and vapour
Skin Irrit. 2: H315 - Causes skin irritation
Skin Sens. 1: H317 - May cause an allergic skin reaction

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:

- CONTINUED ON NEXT PAGE -
### SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>CL50</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW</td>
<td>Octanol-water partition coefficient</td>
</tr>
<tr>
<td>Koc</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1206 - One Step Plus™

1.2 Recommended use of the chemical and restrictions on use:

- Relevant uses: Chemical cleaning products
- Liquid alkaline cleaner for use in commercial car washes.
- Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 920-337-2175 - Fax: 920-337-9410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

- Eye Dam. 1: Serious eye damage, Category 1, H318
- Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:

29 CFR 1910.1200:

Danger

Hazard statements:

- Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:

- P260: Do not breathe dust/fume/gas/mist/vapours/spray
- P264: Wash thoroughly after use
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
- P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P310: Immediately call a poison center/doctor

Substances that contribute to the classification:

- Sodium hydroxide
- Ethoxylated Alcohols
- Phosphate Ester

2.3 Other hazards which do not result in classification:

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Skin Corr. 1A: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 1344-09-8</td>
<td>Silicic acid, sodium salt (2.6 &lt; MR &lt;=3.2)</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohols, Phosphate Ester</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Skin Corr. 1B: H314 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.
SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional / industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Turquoise
- Odor: Mild
- Odour threshold: Non-applicable *

**Vapour:**
- Boiling point at atmospheric pressure: 212 °F
- Vapour pressure at 68 °F: 2350 Pa
- Vapour pressure at 122 °F: 92.87 (12.38 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1093.2 kg/m³
- Relative density at 68 °F: 1.093
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: Non-applicable *
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

- CONTINUED ON NEXT PAGE -
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethoxylated Alcohols, Phosphate Ester</td>
<td>LD50 oral 3950 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
</tr>
<tr>
<td></td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>EC50 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

Not available

12.3 Bioaccumulative potential:

Not available

12.4 Mobility in soil:

Not available

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

This product contains Phosphates.
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Silicic acid, sodium salt (2.6 < MR <=3.2)
   The Toxic Substances Control Act (TSCA) : Sodium hydroxide ; 4-Nonylphenol, branched, ethoxylated ; Silicic acid, sodium salt (2.6 < MR <=3.2) ; Ethoxylated Alcohols, Phosphate Ester
   Massachusetts RTK - Substance List: Sodium hydroxide
   New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide
   New York RTK - Substance list: Sodium hydroxide
   Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide
   CANADA-Domestic Substances List (DSL): Sodium hydroxide ; 4-Nonylphenol, branched, ethoxylated ; Silicic acid, sodium salt (2.6 < MR <=3.2) ; Ethoxylated Alcohols, Phosphate Ester
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Sodium hydroxide
   Rhode Island - Hazardous substances RTK: Sodium hydroxide
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
   This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
   H314: Causes severe skin burns and eye damage
   H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
   The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
SECTION 16: OTHER INFORMATION (continued)

Eye Irrit. 2: H319 - Causes serious eye irritation
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1220 - Advantage®

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Liquid alkaline cleaner for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor

Substances that contribute to the classification
Sodium hydroxide; Ethoxylated Alcohol

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 127087-87-0</td>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>Sodium xylenesulphonate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By inhalation:
This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.
SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
   Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.
B. - Technical recommendations for the prevention of fires and explosions
   Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C. - Technical recommendations to prevent ergonomic and toxicological risks
   Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D. - Technical recommendations to prevent environmental risks
   It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F
B. - General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>8-hour TWA PEL 400 ppm</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td>Ceiling Values - TWA PEL 980 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,….) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Image]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mandatory hand protection

Protective gloves against minor risks

Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Image]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mandatory face protection

Panoramic glasses against splash/projections.

Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Image]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Work clothing

Replace before any evidence of deterioration.

Anti-slip work shoes

Replace before any evidence of deterioration.

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Emergency measure</td>
<td>Standards</td>
</tr>
<tr>
<td></td>
<td>ISO 3864-1:2002</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ISO 3864-1:2002</td>
</tr>
</tbody>
</table>

Environmental exposure controls:

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Liquid
Appearance: Transparent
Color: Green
Odor: Mild
Odour threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: 212 °F
Vapour pressure at 68 °F: 2352 Pa
Vapour pressure at 122 °F: 92.96 (12.39 kPa)
Evaporation rate at 68 °F: Non-applicable *

Product description:
Density at 68 °F: 1088.5 kg/m³
Relative density at 68 °F: 1.088
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: Non-applicable *
Concentration: Non-applicable *
pH: >13
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 °F)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 750 °F
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Propan-2-ol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium xylenesulphonate</td>
<td>LD50 oral 7200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>EC50 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:
Not available

12.4 Mobility in soil:

- CONTINUED ON NEXT PAGE -
SECTION 12: ECOLOGICAL INFORMATION (continued)

Not available

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in
direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-
dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA): 4-Nonylphenol, branched, ethoxylated; Sodium xylenesulphonate; Sodium hydroxide; Ethoxylated Alcohol
   Massachusetts RTK - Substance List: Sodium hydroxide
   New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide
   New York RTK - Substance list: Sodium hydroxide
   Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide
   CANADA-Domestic Substances List (DSL): 4-Nonylphenol, branched, ethoxylated; Sodium xylenesulphonate; Sodium hydroxide; Ethoxylated Alcohol
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Sodium hydroxide
   Rhode Island - Hazardous substances RTK: Sodium hydroxide
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
   This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
   H314: Causes severe skin burns and eye damage
   H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
   The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
SECTION 16: OTHER INFORMATION (continued)

Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1230 - Performix®

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products

Liquid alkaline cleaner for use in commercial car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 920-337-2175 - Fax: 920-337-9410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:

29 CFR 1910.1200:

Danger

Hazard statements:
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor

Substances that contribute to the classification
Surfactant Mixture; Sodium hydroxide; Potassium hydroxide

Additional labeling:
Keep out of the reach of children

2.3 Other hazards which do not result in classification:

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
</table>
| CAS: Non-applicable | Surfactant Mixture  
Eye Dam. 1: H318 - Danger                                           |              |
| CAS: 1310-73-2 | Sodium hydroxide  
Skin Corr. 1A: H314 - Danger                                           |              |
| CAS: 127087-87-0 | 4-Nonylphenol, branched, ethoxylated  
Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning                  |              |
| CAS: 1344-09-8 | Silicic acid, sodium salt (2.6 < MR <=3.2)  
Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning |              |

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

**By inhalation:**
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use full jet water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. - Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. - Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. - Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B. - General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

- CONTINUED ON NEXT PAGE -
SECTION 7: HANDLING AND STORAGE (continued)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Substance</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

| Anti-slip work shoes                |                               | Replace before any evidence of deterioration.                           |

F. Additional emergency measures

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

- V.O.C. (Subpart C - Consumer): 0 % weight
- V.O.C. (Coatings) at 68 ºF: 0 kg/m³ (0 g/L)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Green
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 212 ºF
- Vapour pressure at 68 ºF: 2350 Pa
- Vapour pressure at 122 ºF: 12381.01 Pa (12.38 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1076 kg/m³
- Relative density at 68 ºF: 1.076
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Autoignition temperature: Non-applicable *
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *
Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns.
  For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:
Not available

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION
The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>EC50 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:

- CONTINUED ON NEXT PAGE -
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.4 Mobility in soil:
Not available

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in
direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-
dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
   Environmental hazard: No
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
   Environmental hazard: No
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable
SECTION 14: TRANSPORT INFORMATION (continued)

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Silicic acid, sodium salt (2.6 < MR <=3.2)
   The Toxic Substances Control Act (TSCA) : Sodium hydroxide ; 4-Nonylphenol, branched, ethoxylated ; Silicic acid, sodium salt (2.6 < MR <=3.2)
   Massachusetts RTK - Substance List: Sodium hydroxide
   New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide
   New York RTK - Substance list: Sodium hydroxide
   Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide
   CANADA-Domestic Substances List (DSL): Sodium hydroxide ; 4-Nonylphenol, branched, ethoxylated ; Silicic acid, sodium salt (2.6 < MR <=3.2)
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Sodium hydroxide
   Rhode Island - Hazardous substances RTK: Sodium hydroxide
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

   Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

   Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3
Section 16: Other Information (continued)

29 CFR 1910.1200:

- Eye Dam. 1: H318 - Causes serious eye damage
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
- Skin Irrit. 2: H315 - Causes skin irritation
- STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1233 - Performix® – EC

1.2 Recommended use of the chemical and restrictions on use:

- Relevant uses: Chemical cleaning products
- Liquid alkaline cleaner for use in commercial car washes.
- Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

- Cleaning Systems, Inc.
- 1997 American Blvd
- 54115 De Pere - United States
- Phone.: 9203372175 - Fax: 9203379410
- chemcompliance@cleaningsystemsinc.com
- http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

- 29 CFR 1910.1200:
  - Eye Dam. 1: Serious eye damage, Category 1, H318
  - Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:

- 29 CFR 1910.1200:
  - Danger

  Hazard statements:
  - Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

  Precautionary statements:
  - P260: Do not breathe dust/fume/gas/mist/vapours/spray
  - P264: Wash thoroughly after use
  - P280: Wear protective gloves/protective clothing/eye protection/face protection
  - P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
  - P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
  - P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
  - P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
  - P310: Immediately call a poison center/doctor

  Substances that contribute to the classification
  - Surfactant Mixture; Sodium hydroxide; Potassium hydroxide

  Additional labeling:
  - Keep out of the reach of children

2.3 Other hazards which do not result in classification:

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture&lt;br&gt;Eye Dam. 1: H318 - Danger</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide&lt;br&gt;Skin Corr. 1A: H314 - Danger</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 1344-09-8</td>
<td>Silicic acid, sodium salt (2.6 &lt; MR &lt;=3.2)&lt;br&gt;Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use full jet water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.
SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.
B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F
B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL: 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

- CONTINUED ON NEXT PAGE -
### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

**National volatile organic compound emission standards (40 CFR Part 59):**

- V.O.C. (Subpart C - Consumer): 0 % weight
- V.O.C. (Coatings) at 68 ºF: 0 kg/m³ (0 g/L)

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**

- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Green
- Odor: Mild
- Odour threshold: Non-applicable *

**Volatile:**

- Boiling point at atmospheric pressure: 212 ºF
- Vapour pressure at 68 ºF: 2350 Pa
- Vapour pressure at 122 ºF: 12381.01 Pa (12.38 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**

- Density at 68 ºF: 1074.9 kg/m³
- Relative density at 68 ºF: 1.075
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**

- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: Non-applicable *
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**

- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

#### 9.2 Other information:

*Not relevant due to the nature of the product, not providing information property of its hazards.*

---

*CONTINUED ON NEXT PAGE*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface tension at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Category</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td></td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns.
  For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:
Not available

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>EC50 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:
Not available

12.4 Mobility in soil:
Not available

12.5 Results of PBT and vPvB assessment:
Non-applicable
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.6 Other adverse effects:
This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in
direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-
dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:
### SECTION 14: TRANSPORT INFORMATION (continued)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: UN1824</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: SODIUM HYDROXIDE SOLUTION</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): 8</td>
</tr>
<tr>
<td></td>
<td>Labels: 8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: II</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Silicic acid, sodium salt (2.6 < MR <=3.2)
- The Toxic Substances Control Act (TSCA) : Sodium hydroxide ; Silicic acid, sodium salt (2.6 < MR <=3.2)
- Massachusetts RTK - Substance List: Sodium hydroxide
- New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide
- New York RTK - Substance list: Sodium hydroxide
- Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide
- CANADA-Domestic Substances List (DSL): Sodium hydroxide ; Silicic acid, sodium salt (2.6 < MR <=3.2)
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: Sodium hydroxide
- Rhode Island - Hazardous substances RTK: Sodium hydroxide
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

### SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:

- H314: Causes severe skin burns and eye damage
- H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
### SECTION 16: OTHER INFORMATION (continued)

| Eye Dam. 1: H318 - Causes serious eye damage |
| Eye Irrit. 2: H319 - Causes serious eye irritation |
| Skin Corr. 1A: H314 - Causes severe skin burns and eye damage |
| Skin Irrit. 2: H315 - Causes skin irritation |
| STOT SE 3: H335 - May cause respiratory irritation |

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

CL50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol-water partition coefficient

Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1236 - The EDGE®

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Liquid alkaline cleaner for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

   Precautionary statements:
   P260: Do not breathe dust/fume/gas/mist/vapours/spray
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor

   Substances that contribute to the classification
   Sodium hydroxide; Quaternary Ammonium Compounds; Ethoxylated Alcohol

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:
   Chemical description: Aqueous mixture composed of chemical products for cleaning products
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>&lt;5%</td>
</tr>
<tr>
<td></td>
<td>Skin Corr. 1A: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>&lt;5%</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 1344-09-8</td>
<td>Silicic acid, sodium salt (2.6 &lt; MR &lt;= 3.2)</td>
<td>&lt;5%</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>&lt;5%</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>&lt;5%</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By Inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By Skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By Eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By Ingestion/aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
**SECTION 7: HANDLING AND STORAGE (continued)**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 **Control parameters:**

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 **Appropriate engineering controls:**

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Turquoise
- Odor: Cologne
- Odour threshold: Non-applicable *

**Volutility:**
- Boiling point at atmospheric pressure: 212 °F
- Vapour pressure at 68 °F: 2350 Pa
- Vapour pressure at 122 °F: 92.87 (12.38 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1071.3 kg/m³
- Relative density at 68 °F: 1.071
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 615 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:

Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:

Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustile materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):

  - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
  - Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):

  - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
  - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):

  - Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
  - Contact with the eyes: Produces serious eye damage after contact.

Date of compilation: 6/5/2019 Version: 1
D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2,2’,2”-nitrilotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50 oral</td>
<td>3000 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>LD50 dermal</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>EC50 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:
Not available
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.4 Mobility in soil:
Not available

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in
direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-
dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to
Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to
Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable

Transport of dangerous goods by air:
SECTION 14: TRANSPORT INFORMATION (continued)

With regard to IATA/ICAO 2019:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Silicic acid, sodium salt (2.6 < MR <=3.2)
   The Toxic Substances Control Act (TSCA) : Sodium hydroxide ; Quaternary Ammonium Compounds ; Silicic acid, sodium salt (2.6 < MR <=3.2) ; 4-Nonylphenol, branched, ethoxylated ; Ethoxylated Alcohol
   Massachusetts RTK - Substance List: Sodium hydroxide
   New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide
   New York RTK - Substance list: Sodium hydroxide
   Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide
   CANADA-Domestic Substances List (DSL): Sodium hydroxide ; Quaternary Ammonium Compounds ; Silicic acid, sodium salt (2.6 < MR <=3.2) ; 4-Nonylphenol, branched, ethoxylated ; Ethoxylated Alcohol
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Sodium hydroxide
   Rhode Island - Hazardous substances RTK: Sodium hydroxide
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
## SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Eye Dam. 1: H318 - Causes serious eye damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Irrit. 2: H319 - Causes serious eye irritation</td>
</tr>
<tr>
<td>Skin Corr. 1A: H314 - Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>Skin Irrit. 2: H315 - Causes skin irritation</td>
</tr>
<tr>
<td>STOT SE 3: H335 - May cause respiratory irritation</td>
</tr>
</tbody>
</table>

**Advice related to training:**
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**
Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1238 - The Option®

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products

Liquid alkaline cleaner for use in commercial car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:

29 CFR 1910.1200:

Danger

Hazard statements:
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor

Substances that contribute to the classification

Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; Ethoxylated Alcohols, Phosphate Ester

Acute Toxicity Estimate (ATE mix):
4.83 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Skin Corr. 1A: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohols, Phosphate Ester</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Skin Corr. 1B: H314 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

- CONTINUED ON NEXT PAGE -
**SECTION 7: HANDLING AND STORAGE (continued)**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

---

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 **Control parameters:**

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA</td>
</tr>
</tbody>
</table>

8.2 **Appropriate engineering controls:**

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Green
- Odor: Not available
- Odour threshold: Non-applicable *

**Volvatility:**
- Boiling point at atmospheric pressure: 212 ºF
- Vapour pressure at 68 ºF: 2350 Pa
- Vapour pressure at 122 ºF: 92.87 (12.38 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1076.7 kg/m³
- Relative density at 68 ºF: 1.077
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 615 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 ºF: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2,2’,2”-nitrilotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate CAS: 64-02-8</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Ethoxylated Alcohols, Phosphate Ester CAS: Proprietary</td>
<td>LD50 oral 3950 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th></th>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>121951.22 mg/kg (Calculation method)</td>
<td>4.83 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide CAS: 1310-73-2</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**SECTION 12: ECOLOGICAL INFORMATION (continued)**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>121 mg/L (96 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC50</td>
<td>140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>EC50</td>
<td>Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**12.2 Persistence and degradability:**
Not applicable

**12.3 Bioaccumulative potential:**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td></td>
</tr>
<tr>
<td>BCF</td>
<td>2</td>
</tr>
<tr>
<td>Pow Log</td>
<td>-13</td>
</tr>
</tbody>
</table>

**12.4 Mobility in soil:**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>1046</td>
<td></td>
</tr>
<tr>
<td>Koc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conclusion</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Henry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry soil</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Surface tension</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Moist soil</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

**12.5 Results of PBT and vPvB assessment:**
Non-applicable

**12.6 Other adverse effects:**
Not described

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1 Disposal methods:**

*Waste management (disposal and evaluation):*
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

*Regulation related to waste management:*
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

**SECTION 14: TRANSPORT INFORMATION**

**Transport of dangerous goods by land:**

*With regard to 49 CFR on the Transport of Dangerous Goods:*

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises:
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

**Transport of dangerous goods by sea:**

- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

With regard to IMDG 38-16:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
    Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
    Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
    Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
    Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
    Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
    Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA) : Sodium hydroxide ; 4-Nonylphenol, branched, ethoxylated ; Tetrasodium ethylenediaminetetraacetate ; Ethoxylated Alcohols, Phosphate Ester
Massachusetts RTK - Substance List: Sodium hydroxide
New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide
New York RTK - Substance list: Sodium hydroxide
Pennsylvania Worker and Community Right-to-Know Act: Sodium hydroxide
CANADA-Domestic Substances List (DSL): Sodium hydroxide ; 4-Nonylphenol, branched, ethoxylated ; Tetrasodium ethylenediaminetetraacetate ; Ethoxylated Alcohols, Phosphate Ester
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Sodium hydroxide
Rhode Island - Hazardous substances RTK: Sodium hydroxide
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.
### SECTION 15: REGULATORY INFORMATION (continued)

**Other legislation:**
- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

### SECTION 16: OTHER INFORMATION

**Legislation related to safety data sheets:**
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

**Texts of the legislative phrases mentioned in section 2:**
- H314: Causes severe skin burns and eye damage
- H318: Causes serious eye damage

**Texts of the legislative phrases mentioned in section 3:**
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**29 CFR 1910.1200:**
- Acute Tox. 4: H302 - Harmful if swallowed
- Eye Dam. 1: H318 - Causes serious eye damage
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
- Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
- Skin Irrit. 2: H315 - Causes skin irritation

**Advice related to training:**
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**
- Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1241 - Triumph™

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Liquid high alkaline cleaner for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor

Substances that contribute to the classification
Sodium hydroxide

Acute Toxicity Estimate (ATE mix):
16.24 % (oral), 19.17 % (dermal), 19.17 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrt. 2: H319; Flam. Liq. 4: H227; Skin Irrt. 2: H315 - Warning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 1344-09-8</td>
<td>Silicic acid, sodium salt (2.6 &lt; MR &lt;=3.2)</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>Eye Irrt. 2: H319; Skin Irrt. 2: H315; STOT SE 3: H335 - Warning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>Skin Corr. 1A: H314 - Danger</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
SECTION 7: HANDLING AND STORAGE (continued)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Substance</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mandatory hand protection" /></td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mandatory face protection" /></td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Work clothing" /></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td><img src="image" alt="Anti-slip work shoes" /></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Blue
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 216 ºF
- Vapour pressure at 68 ºF: 2332 Pa
- Vapour pressure at 122 ºF: 92.17 (12.29 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1062.3 kg/m³
- Relative density at 68 ºF: 1.062
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

Page 5/11
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

Other information:
Surface tension at 68 ºF: Non-applicable *
Refractive index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Material</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
  - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
    IARC: 2-butoxyethanol (3); 2,2',2''-nitrihotriethanol (3)
  - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
  - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
  - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
  - Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

  - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
  - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral</td>
<td>1414 mg/kg</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal</td>
<td>1060 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>11 mg/L (4 h)</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>30448.25 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>22027.02 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>228.58 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>EC50 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>COD 2.2 g O2/g Period 14 days</td>
<td>BOD5/COD 0.32 % Biodegradable 96 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.63</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc it</td>
<td>Henry 1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>UN1824</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>SODIUM HYDROXIDE SOLUTION</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### Transport of dangerous goods by sea:

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>UN1824</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>SODIUM HYDROXIDE SOLUTION</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>UN1824</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>SODIUM HYDROXIDE SOLUTION</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

| 15.1 | Safety, health and environmental regulations specific for the product in question: |
SECTION 15: REGULATORY INFORMATION (continued)

- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
  - California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Silicic acid, sodium salt (2.6 < MR <=3.2)
  - The Toxic Substances Control Act (TSCA) : 2-butoxyethanol ; Silicic acid, sodium salt (2.6 < MR <=3.2) ; Sodium hydroxide
  - Massachusetts RTK - Substance List: Sodium hydroxide
  - New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol ; Sodium hydroxide
  - New York RTK - Substance list: 2-butoxyethanol ; Sodium hydroxide
  - Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol ; Sodium hydroxide
  - CANADA-Domestic Substances List (DSL): 2-butoxyethanol ; Silicic acid, sodium salt (2.6 < MR <=3.2) ; Sodium hydroxide
  - CANADA-Non-Domestic Substances List (NDSSL): Non-applicable
  - NTP (National Toxicology Program): Non-applicable
  - Minnesota - Hazardous substances ERTK: 2-butoxyethanol ; Sodium hydroxide
  - Rhode Island - Hazardous substances RTK: 2-butoxyethanol ; Sodium hydroxide
  - Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:

- H314: Causes severe skin burns and eye damage
- H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:

- Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flam. Liq. 4: H227 - Combustible liquid
- Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
- Skin Irrit. 2: H315 - Causes skin irritation
- STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

- Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
SECTION 16: OTHER INFORMATION (continued)

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1243 - TheOption® EC

1.2 Recommended use of the chemical and restrictions on use:

   Relevant uses: Chemical cleaning products
   Liquid high alkaline cleaner for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Repr. 1B: Reproductive toxicity, Category 1B, H360
   Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:

   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Repr. 1B: H360 - May damage fertility or the unborn child
   Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

   Precautionary statements:
   P201: Obtain special instructions before use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to
   do. Continue rinsing
   P308+P313: IF exposed or concerned: Get medical advice/attention
   P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging
   waste respectively

   Substances that contribute to the classification
   Ethoxylated Alcohol; Sodium hydroxide; Disodium tetraborate decahydrate

   Acute Toxicity Estimate (ATE mix):
   4.61 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:

   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products
Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide Skin Corr. 1A: H314 - Danger</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 1303-96-4</td>
<td>Disodium tetraborate decahydrate Repr. 1B: H360 - Danger</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By Inhalation:
This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
PREGNANT WOMEN SHOULD NOT BE EXPOSED TO THIS PRODUCT. Transfer in fixed places that comply with the necessary security conditions (emergency showers and eyewash stations in close proximity), using personal protection equipment, especially on the hands and face (See section 8). Limit manual transfers to containers of small amounts. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 ºF
Maximum Temp.: 120 ºF
SECTION 7: HANDLING AND STORAGE (continued)

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>Methanol</td>
<td>8-hour TWA PEL 200 ppm</td>
</tr>
<tr>
<td>CAS: 67-56-1</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Purple
- Odor: Mild
- Odor threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 212 °F
- Vapour pressure at 68 °F: 2354 Pa
- Vapour pressure at 122 °F: 92.98 (12.4 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1063.7 kg/m³
- Relative density at 68 °F: 1.064
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Flammability:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point:</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
</tr>
<tr>
<td>Autoignition temperature:</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
</tr>
<tr>
<td>Upper flammability limit:</td>
</tr>
</tbody>
</table>

**Explosive:**

| Lower explosive limit: | Non-applicable * |
| Upper explosive limit: | Non-applicable * |

9.2 **Other information:**

| Surface tension at 68 °F: | Non-applicable * |
| Refraction index:         | Non-applicable * |

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 **Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 **Chemical stability:**

Chemically stable under the conditions of storage, handling and use.

10.3 **Possibility of hazardous reactions:**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 **Conditions to avoid:**

Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 **Incompatible materials:**

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 **Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects:**

The experimental information related to the toxicological properties of the product itself is not available

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- **Ingestion (acute effect):**

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.

- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- **Inhalation (acute effect):**
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2,2’,2”-nitritriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: May damage fertility or the unborn child

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other Information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethoxylated Alcohol</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Disodium tetraborate decahydrate</td>
<td>LD50 oral 4500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 1303-96-4</td>
<td>LD50 dermal 10000 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral 17241.38 mg/kg (Calculation method)</td>
<td>4.61 %</td>
</tr>
<tr>
<td>Dermal &gt;5000 mg/kg (Calculation method)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Inhalation &gt;20 mg/L (4 h) (Calculation method)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

- CONTINUED ON NEXT PAGE -
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>EC50 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td>Disodium tetraborate decahydrate</td>
<td>LC50 178 mg/L (72 h)</td>
<td>Carassius auratus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1303-96-4</td>
<td>EC50 1085 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 158 mg/L (96 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:
Not available

12.4 Mobility in soil:
Not available

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

- CONTINUED ON NEXT PAGE -
### SECTION 14: TRANSPORT INFORMATION (continued)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: UN1824</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: SODIUM HYDROXIDE SOLUTION</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): 8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: II</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: UN1824</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: SODIUM HYDROXIDE SOLUTION</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): 8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: II</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
- The Toxic Substances Control Act (TSCA): Ethoxylated Alcohol; Sodium hydroxide; Disodium tetraborate decahydrate
- Massachusetts RTK - Substance List: Sodium hydroxide
- New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide; Disodium tetraborate decahydrate
- New York RTK - Substance list: Sodium hydroxide; Disodium tetraborate decahydrate
- Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide; Disodium tetraborate decahydrate
- CANADA-Domestic Substances List (DSL): Ethoxylated Alcohol; Sodium hydroxide; Disodium tetraborate decahydrate
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: Sodium hydroxide; Disodium tetraborate decahydrate
- Rhode Island - Hazardous substances RTK: Sodium hydroxide; Disodium tetraborate decahydrate
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:

- It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)
**SECTION 16: OTHER INFORMATION**

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
- H318: Causes serious eye damage
- H360: May damage fertility or the unborn child
- H314: Causes severe skin burns and eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

*29 CFR 1910.1200:*
- Acute Tox. 4: H302 - Harmful if swallowed
- Eye Dam. 1: H318 - Causes serious eye damage
- Repr. 1B: H360 - May damage fertility or the unborn child
- Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1245 - Horizon®

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Foaming liquid alkaline cleaner for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

   Precautionary statements:
   P260: Do not breathe dust/fume/gas/mist/vapours/spray
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   P303+P361+P335: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor

   Substances that contribute to the classification
   Surfactant Mixture; Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; Sodium Metasilicate

   Acute Toxicity Estimate (ATE mix):
   24.42 % (oral), 28.9 % (dermal), 28.9 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture</td>
<td>Eye Dam. 1: H318 - Danger, 15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning, &lt;5 %</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>Skin Corr. 1A: H314 - Danger, &lt;5 %</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger, &lt;5 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning, &lt;5 %</td>
</tr>
<tr>
<td>CAS: 6834-92-0</td>
<td>Sodium Metasilicate</td>
<td>Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger, &lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
SECTION 7: HANDLING AND STORAGE (continued)

Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide, CAS: 1310-73-2</td>
<td>8-hour TWA PEL: 2 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>Phosphoric acid, CAS: 7664-38-2</td>
<td>8-hour TWA PEL: 1 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>2-butoxyethanol, CAS: 111-76-2</td>
<td>8-hour TWA PEL: 50 ppm, 240 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Brown
- Odor: Mild
- Odour threshold: Non-applicable *

Vocatility:
- Boiling point at atmospheric pressure: 214 °F
- Vapour pressure at 68 °F: 2340 Pa
- Vapour pressure at 122 °F: 92.49 (12.33 kPa)
- Evaporation rate at 68 °F: Non-applicable *

Product description:
- Density at 68 °F: 1075.2 kg/m³
- Relative density at 68 °F: 1.075
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: >13
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/freezing point</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Flammability</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>Non Flammable (&gt;199.4 °F)</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>460 °F</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>460 °F</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Surface tension at 68 °F</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Material</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
The experimental information related to the toxicological properties of the product itself is not available. Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3); E-caprolactam (4)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>24712.71 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>40737.81 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>422.75 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>EC50 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>LC50 210 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 6834-92-0</td>
<td>EC50 216 mg/L (96 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period</td>
</tr>
<tr>
<td>BOD5/COD</td>
<td>0.32</td>
<td>% Biodegradable</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -13</td>
</tr>
<tr>
<td>Potential</td>
<td>LOW</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td>Potential</td>
<td>LOW</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion</td>
<td>Very High</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>2.72E-2 N/m (77 ºF)</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): 4-Nonylphenol, branched, ethoxylated; Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; 2-butoxyethanol; Sodium Metasilicate
Massachusetts RTK - Substance List: Sodium hydroxide
New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide; 2-butoxyethanol
New York RTK - Substance list: Sodium hydroxide; 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide; 2-butoxyethanol
CANADA-Domestic Substances List (DSL): 4-Nonylphenol, branched, ethoxylated; Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; 2-butoxyethanol; Sodium Metasilicate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Sodium hydroxide; 2-butoxyethanol
Rhode Island - Hazardous substances RTK: Sodium hydroxide; 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes skin irritation
Flam. Liq. 4: H227 - Combustible liquid
Met. Corr. 1: H290 - May be corrosive to metals
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
### SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>CL50</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW</td>
<td>Octanol-water partition coefficient</td>
</tr>
<tr>
<td>Koc</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1255 - WipeOut® Base

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Liquid high alkaline cleaner for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor

Substances that contribute to the classification
Sodium hydroxide; Potassium hydroxide; Tetrasodium ethylenediaminetetraacetate; 2-aminoethanol

Acute Toxicity Estimate (ATE mix):
6.53 % (oral), 13.71 % (dermal), 13.71 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Skin Corr. 1A: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>Potassium hydroxide</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Skin Corr. 1A: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>2-aminoethanol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Flam. Liq. 4: H227; Skin Corr. 1B: H314 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.
SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5
SECTION 7: HANDLING AND STORAGE (continued)

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL: 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>8-hour TWA PEL: 3 ppm</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>Ceiling Values - TWA PEL: 6 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 ºF: Liquid
Appearance: Transparent
Color: Yellow
Odor: Mild
Odour threshold: Non-applicable *

Volatility:
Boiling point at atmospheric pressure: 213 ºF
Vapour pressure at 68 ºF: 2339 Pa
Vapour pressure at 122 ºF: 92.43 (12.32 kPa)
Evaporation rate at 68 ºF: Non-applicable *

Product description:
Density at 68 ºF: 1103.6 kg/m³
Relative density at 68 ºF: 1.104
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: >13
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 1224 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
   - Contact with the eyes: Produces serious eye damage after contact.

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Diethanolamine (2B)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1025 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>LD50 oral 388 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>6889.77 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>6318.45 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>684.88 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
### SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide CAS: 1310-73-2</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 33 mg/L</td>
<td>Cragon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide CAS: 1310-58-3</td>
<td>LC50 80 mg/L (48 h)</td>
<td>Gambussia afni</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate CAS: 64-02-8</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-aminoethanol CAS: 141-43-5</td>
<td>LC50 349 mg/L (96 h)</td>
<td>Cyprinus carpio</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 65 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 22 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol CAS: 141-43-5</td>
<td>BOD5 Non-applicable</td>
<td>Concentration 20 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD Non-applicable</td>
<td>Period 21 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 90 %</td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate CAS: 64-02-8</td>
<td>BCF 2</td>
</tr>
<tr>
<td></td>
<td>Pow Log -1.3</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>2-aminoethanol CAS: 141-43-5</td>
<td>BCF 3</td>
</tr>
<tr>
<td></td>
<td>Pow Log -1.31</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

#### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate CAS: 64-02-8</td>
<td>Koc 1046</td>
<td>Henry 3E+0 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
<tr>
<td>2-aminoethanol CAS: 141-43-5</td>
<td>Koc 0.27</td>
<td>Henry 3.7E-5 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 5.025E-2 N/m (77 °F)</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

#### 12.5 Results of PBT and vPvB assessment:

Non-applicable

#### 12.6 Other adverse effects:

Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE
SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Sodium hydroxide; Potassium hydroxide; Tetrasodium ethylenediaminetetraacetate; 2-aminoethanol
Massachusetts RTK - Substance List: Sodium hydroxide; Potassium hydroxide
New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide; Potassium hydroxide; 2-aminoethanol
New York RTK - Substance List: Sodium hydroxide; Potassium hydroxide; 2-aminoethanol
Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide; Potassium hydroxide; 2-aminoethanol
CANADA-Domestic Substances List (DSL): Sodium hydroxide; Potassium hydroxide; Tetrasodium ethylenediaminetetraacetate; 2-aminoethanol
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Sodium hydroxide; Potassium hydroxide; 2-aminoethanol
Rhode Island - Hazardous substances RTK: Sodium hydroxide; Potassium hydroxide; 2-aminoethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds); Potassium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage
H314: Causes severe skin burns and eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
SECTION 16: OTHER INFORMATION (continued)

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1256 - WipeOut® Blend

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Solvent-Surfactant blend for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Eye Dam. 1: Serious eye damage, Category 1, H318

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage

Precautionary statements:
P264: Wash thoroughly after use
P270: Do no eat, drink or smoke when using this product
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P312: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to
do. Continue rinsing
P310: Immediately call a poison center/doctor
P330: Rinse mouth
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging
waste respectively

Substances that contribute to the classification
Ethoxylated Alcohol; 2-butoxyethanol; Quaternary Ammonium Compounds; Ethoxylated Alcohol

Acute Toxicity Estimate (ATE mix):
6 % (oral), 49.2 % (dermal), 49.2 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>Eye Dam. 1: H318 - Danger</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
   Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.
B.- Technical recommendations for the prevention of fires and explosions
   Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
   Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
   It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
   Minimum Temp.: -4 ºF
   Maximum Temp.: 120 ºF

- CONTINUED ON NEXT PAGE -
### SECTION 7: HANDLING AND STORAGE (continued)

**B. - General conditions for storage**

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

**7.3 Specific end use(s):**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

CAS: 111-76-2

#### 8.2 Appropriate engineering controls:

**A. - Individual protection measures, such as personal protective equipment**

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

**B. - Respiratory protection**

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

**C. - Specific protection for the hands**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

**D. - Ocular and facial protection**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

**E. - Bodily protection**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

**F. - Additional emergency measures**

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Green
- Odor: Mild
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 224 ºF
- Vapour pressure at 68 ºF: 2291 Pa
- Vapour pressure at 122 ºF: 90.57 (12.07 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1010.1 kg/m³
- Relative density at 68 ºF: 1.01
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: Non-applicable *
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 377 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LD50 oral 3000 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Ethoxylated Alcohol CAS: Proprietary</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1293.59 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>7179.73 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>74.51 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

- CONTINUED ON NEXT PAGE -
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol  
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable  
The Toxic Substances Control Act (TSCA) : Ethoxylated Alcohol ; 2-butoxyethanol ; Quaternary Ammonium Compounds ; Ethoxylated Alcohol  
Massachusetts RTK - Substance List: Non-applicable  
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol  
New York RTK - Substance list: 2-butoxyethanol  
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol  
CANADA-Domestic Substances List (DSL): Ethoxylated Alcohol ; 2-butoxyethanol ; Quaternary Ammonium Compounds ; Ethoxylated Alcohol  
CANADA-Non-Domestic Substances List (NDSL): Non-applicable  
NTP (National Toxicology Program): Non-applicable  
Minnesota - Hazardous substances ERTK: 2-butoxyethanol  
Rhode Island - Hazardous substances RTK: 2-butoxyethanol  
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

The Toxic Substances Control Act (TSCA)  
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:

H318: Causes serious eye damage  
H302: Harmful if swallowed

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:

Acute Tox. 4: H302 - Harmful if swallowed  
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled  
Eye Dam. 1: H318 - Causes serious eye damage  
Eye Irrit. 2: H319 - Causes serious eye irritation  
Flam. Liq. 4: H227 - Combustible liquid  
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:

- CONTINUED ON NEXT PAGE -
SECTION 16: OTHER INFORMATION (continued)

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
**SECTION 1: IDENTIFICATION**

1.1 **GHS Product Identifier:** 1265 - High Pressure Wand Wash  
1.2 **Recommended use of the chemical and restrictions on use:**  
   Relevant uses: Chemical cleaning products  
   High alkaline concentrated liquid presoak and high pressure detergent.  
   Uses advised against: All uses not specified in this section or in section 7.3  
1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**  
   Cleaning Systems, Inc.  
   1997 American Blvd  
   54115 De Pere - United States  
   Phone.: 9203372175 - Fax: 9203379410  
   chemcompliance@cleaningsystemsinc.com  
   http://cleaningsystemsinc.com  
1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

**SECTION 2: HAZARD(S) IDENTIFICATION**

2.1 **Classification of the substance or mixture:**  
   29 CFR 1910.1200:  
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.  
   Eye Dam. 1: Serious eye damage, Category 1, H318  
   Repr. 1B: Reproductive toxicity, Category 1B, H360  
   Skin Corr. 1A: Skin corrosion, Category 1A, H314  
2.2 **Label elements:**  
   29 CFR 1910.1200:  
   Danger  
   ![Danger Symbol]  
   **Hazard statements:**  
   Repr. 1B: H360 - May damage fertility or the unborn child  
   Skin Corr. 1A: H314 - Causes severe skin burns and eye damage  
   **Precautionary statements:**  
   P201: Obtain special instructions before use  
   P280: Wear protective gloves/protective clothing/eye protection/face protection  
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
   P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
   P308+P313: IF exposed or concerned: Get medical advice/attention  
   P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively  
   **Substances that contribute to the classification**  
   Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; Alkyl Imino dipropionic Acid, Monosodium Salt; Disodium tetraborate decahydrate  
   **Acute Toxicity Estimate (ATE mix):**  
   14.39 % (oral) of the mixture consists of ingredient(s) of unknown toxicity  
2.3 **Other hazards which do not result in classification:**  
   Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Skin Corr. 1A: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Alkyl imino dipropionic Acid, Monosodium Salt</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 1303-96-4</td>
<td>Disodium tetraborate decahydrate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Repr. 1B: H360 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

**By inhalation:**
This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

**By skin contact:**
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
PREGNANT WOMEN SHOULD NOT BE EXPOSED TO THIS PRODUCT. Transfer in fixed places that comply with the necessary security conditions (emergency showers and eyewash stations in close proximity), using personal protection equipment, especially on the hands and face (See section 8). Limit manual transfers to containers of small amounts. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

- CONTINUED ON NEXT PAGE -
SECTION 7: HANDLING AND STORAGE (continued)

A. Technical measures for storage
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F

B. General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
   Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Substance</th>
<th>8-hour TWA PEL</th>
<th>Ceiling Values - TWA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>2 mg/m³</td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>5 mg/m³</td>
<td></td>
</tr>
<tr>
<td>CAS: 56-81-5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands
   Mandatory hand protection
   NON-disposable chemical protective gloves
   The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection
   Mandatory face protection
   Face shield
   Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)

E. Bodily protection

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="" /></td>
<td>Disposable clothing for protection against chemical risks</td>
<td>For professional use only. Clean periodically according to the manufacturer’s instructions.</td>
</tr>
<tr>
<td><img src="image" alt="" /></td>
<td>Safety footwear for protection against chemical risk</td>
<td>Replace boots at any sign of deterioration. Use foot protection in accordance with manufacturer’s use limitations and OSHA standard 1910.136 (29CFR)</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Amber
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 212 °F
- Vapour pressure at 68 °F: 2350 Pa
- Vapour pressure at 122 °F: 92.87° (12.38 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1134.7 kg/m³
- Relative density at 68 °F: 1.135
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decomposition temperature</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Flammability</td>
<td>Non Flammable (&gt;199.4 °F)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Material</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:
A- Ingestion (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: May damage fertility or the unborn child

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Alkyl Imino dipropionic Acid, Monosodium Salt</td>
<td>LD50 oral 31500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Disodium tetraborate decahydrate</td>
<td>LD50 oral 4500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 1303-96-4</td>
<td>LD50 dermal 10000 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
</table>

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Route</th>
<th>LC[50]</th>
<th>EC[50]</th>
<th>Calculation method</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>36,428.51 mg/kg</td>
<td>14.39%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg</td>
<td>Non-applicable</td>
<td>(Calculation method)</td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h)</td>
<td>Non-applicable</td>
<td>(Calculation method)</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>LC[50] 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>EC[50] 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC[50] 121 mg/L (96 h)</td>
<td>Leptos surmaturus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC[50] 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>Alkyl Imino dipropionic Acid, Monosodium Salt</td>
<td>LC[50] 4.2 mg/L (96 h)</td>
<td>Oncorhynchus mykiss</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC[50] 5.7 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>Disodium tetraborate decahydrate</td>
<td>LC[50] 178 mg/L (72 h)</td>
<td>Carassius auratus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1303-86-4</td>
<td>EC[50] 1085 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Imino dipropionic Acid, Monosodium Salt</td>
<td>BOD[5] Non-applicable</td>
<td>Concentration 10 mg/L</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 95 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -13</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m²/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:

- CONTINUED ON NEXT PAGE -
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; Alkyl imino dipropionic Acid, Monosodium Salt; Disodium tetraborate decahydrate
Massachusetts RTK - Substance List: Sodium hydroxide
New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide; Disodium tetraborate decahydrate
New York RTK - Substance list: Sodium hydroxide; Disodium tetraborate decahydrate
Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide; Disodium tetraborate decahydrate
CANADA-Domestic Substances List (DSL): Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; Alkyl imino dipropionic Acid, Monosodium Salt; Disodium tetraborate decahydrate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Sodium hydroxide; Disodium tetraborate decahydrate
Rhode Island - Hazardous substances RTK: Sodium hydroxide; Disodium tetraborate decahydrate
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H360: May damage fertility or the unborn child

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Repr. 1B: H360 - May damage fertility or the unborn child
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:

- CONTINUED ON NEXT PAGE -
SECTION 16: OTHER INFORMATION (continued)

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety date sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier:  1272 - Resolution™ UN

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Liquid alkaline cleaner for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number:  1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor

Substances that contribute to the classification
Surfactant Mixture; Sodium Metasilicate; Tetrasodium ethylenediaminetetraacetate; Sodium hydroxide

Acute Toxicity Estimate (ATE mix):
12.82 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture</td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
</tr>
<tr>
<td>CAS: 6834-92-0</td>
<td>Sodium Metasilicate</td>
<td>Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: 497-19-8</td>
<td>Sodium carbonate</td>
<td>Eye Irrit. 2: H319 - Warning</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical: - CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

- CONTINUED ON NEXT PAGE -
SECTION 7: HANDLING AND STORAGE (continued)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA</td>
</tr>
<tr>
<td></td>
<td>PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Greenish
- Odor: Not available
- Odour threshold: Non-applicable *

Volatile:
- Boiling point at atmospheric pressure: 212 ºF
- Vapour pressure at 68 ºF: 2350 Pa
- Vapour pressure at 122 ºF: 92.87° (12.38 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

Product description:
- Density at 68 ºF: 1092.2 kg/m³
- Relative density at 68 ºF: 1.092
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

Flammability:
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 615 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -
**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)**

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY**

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION**

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommened by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

- CONTINUED ON NEXT PAGE -
D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2,2′,2″ - nitrilotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium carbonate</td>
<td>LD50 oral</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 497-19-8</td>
<td>4090 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>1700 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>69190.48 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td>LC50</td>
<td>210 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
</tr>
<tr>
<td>CAS: 6834-92-0</td>
<td>EC50</td>
<td>216 mg/L (96 h)</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium carbonate</td>
<td>LC50 740 mg/L (96 h)</td>
<td>Gambussia afnini</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 497-19-8</td>
<td>EC50 265 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -13</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN3266
14.2 UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN3266
14.2 UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: UN3266
14.2 UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Sodium Metasilicate; Tetrasodium ethylenediaminetetraacetate; Sodium carbonate
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: Non-applicable
New York RTK - Substance list: Non-applicable
Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
CANADA-Domestic Substances List (DSL): Sodium Metasilicate; Tetrasodium ethylenediaminetetraacetate; Sodium carbonate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Non-applicable
Rhode Island - Hazardous substances RTK: Non-applicable
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Met. Corr. 1: H290 - May be corrosive to metals
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
### SECTION 16: OTHER INFORMATION (continued)

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, it is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1300 - Spectrum® Low Pressure Presoak

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Liquid alkaline cleaner for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
   29 CFR 1910.1200:
   Danger
   Hazard statements:
   Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
   Precautionary statements:
   P260: Do not breathe dust/fume/gas/mist/vapours/spray
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:
   Chemical description: Aqueous mixture composed of chemical products for cleaning products
   Components:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 6834-92-0</td>
<td>Sodium Metasilicate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
B. - Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C. - Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D. - Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
Minimum Temp.: -4 ºF
Maximum Temp.: 120 ºF
B. - General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSOAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace
There are no occupational exposure limits for the substances contained in the product

### 8.2 Appropriate engineering controls:

**A.** Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

**B.** Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

**C.** Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mandatory hand protection" /></td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

**D.** Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mandatory face protection" /></td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

**E.** Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Work clothing" /></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td><img src="image" alt="Anti-slip work shoes" /></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

**F.** Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

*Not relevant due to the nature of the product, not providing information property of its hazards.*
### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

#### 9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Purple
- Odor: Citric
- Odour threshold: Non-applicable *

**Vatility:**
- Boiling point at atmospheric pressure: 212 °F
- Vapour pressure at 68 °F: 2350 Pa
- Vapour pressure at 122 °F: 92.86 (12.38 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1068 kg/m³
- Relative density at 68 °F: 1.068
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: >13
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 545 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

#### 9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*

---

### SECTION 10: STABILITY AND REACTIVITY

**10.1 Reactivity:**

- CONTINUED ON NEXT PAGE -
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

**10.2 Chemical stability:**
Chemically stable under the conditions of storage, handling and use.

**10.3 Possibility of hazardous reactions:**
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

**10.4 Conditions to avoid:**
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

**10.5 Incompatible materials:**

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

**10.6 Hazardous decomposition products:**
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects:**
The experimental information related to the toxicological properties of the product itself is not available

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:
Not available

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate, CAS: 6834-92-0</td>
<td>LC50 210 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 216 mg/L (96 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:
Not available

12.4 Mobility in soil:
Not available

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):

- CONTINUED ON NEXT PAGE -
### SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**
Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

### SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**
With regard to 49 CFR on the Transport of Dangerous Goods:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number:</td>
<td>UN3266</td>
</tr>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate)</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>III</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by sea:**
With regard to IMDG 38-16:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number:</td>
<td>UN3266</td>
</tr>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate)</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>III</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by air:**
With regard to IATA/ICAO 2019:
14.1 UN number: UN3266
14.2 UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate)
14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Sodium Metasilicate ; 4-Nonylphenol, branched, ethoxylated
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: Non-applicable
New York RTK - Substance list: Non-applicable
Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
CANADA-Domestic Substances List (DSL): Sodium Metasilicate ; 4-Nonylphenol, branched, ethoxylated
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Non-applicable
Rhode Island - Hazardous substances RTK: Non-applicable
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable
Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.
Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
<table>
<thead>
<tr>
<th>Safety data sheet according to 29 CFR 1910.1200</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1300 - Spectrum® Low Pressure Presoak</strong></td>
</tr>
</tbody>
</table>

### SECTION 16: OTHER INFORMATION (continued)

| Eye Dam. 1: H318 - Causes serious eye damage |
| Eye Irrit. 2: H319 - Causes serious eye irritation |
| Met. Corr. 1: H280 - May be corrosive to metals |
| Skin Corr. 1B: H314 - Causes severe skin burns and eye damage |
| Skin Irrit. 2: H315 - Causes skin irritation |
| STOT SE 3: H335 - May cause respiratory irritation |

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon
### SECTION 1: IDENTIFICATION

1.1 **GHS Product identifier:** 1301 - Spectrum® Bright Purple Presoak

1.2 **Recommended use of the chemical and restrictions on use:**
- Relevant uses: Chemical cleaning products
- Liquid alkaline cleaner for use in commercial car washes.
- Uses advised against: All uses not specified in this section or in section 7.3

1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**
- Cleaning Systems, Inc.
  - 1997 American Blvd
  - 54115 De Pere - United States
  - Phone.: 9203372175 - Fax: 9203379410
  - chemcompliance@cleaningsystemsinc.com
  - http://cleaningsystemsinc.com

1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

### SECTION 2: HAZARD(S) IDENTIFICATION

2.1 **Classification of the substance or mixture:**
- 29 CFR 1910.1200:
  - Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
  - Eye Dam. 1: Serious eye damage, Category 1, H318
  - Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 **Label elements:**
- 29 CFR 1910.1200:
  - Danger

  **Hazard statements:**
  - Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

  **Precautionary statements:**
  - P260: Do not breathe dust/fume/gas/mist/vapours/spray
  - P264: Wash thoroughly after use
  - P280: Wear protective gloves/protective clothing/eye protection/face protection
  - P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
  - P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
  - P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
  - P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
  - P310: Immediately call a poison center/doctor

  **Substances that contribute to the classification**
  - Surfactant Mixture; Potassium hydroxide; Sodium hydroxide

  **Acute Toxicity Estimate (ATE mix):**
  - 9.73 % (oral), 17.8 % (dermal), 17.8 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 **Other hazards which do not result in classification:**
- Non-applicable

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 **Substances:**
- Non-applicable
3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture</td>
<td>Eye Dam. 1: H318 - Danger</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>Potassium hydroxide</td>
<td>Acute Tox. 4: H302; Skin Corr. 1A: H314 - Danger</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By Inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By Skin Contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By Eye Contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By Ingestion/Aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most Important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
SECTION 7: HANDLING AND STORAGE (continued)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>8-hour TWA PEL</th>
<th>Ceiling Values - TWA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>50 ppm</td>
<td>240 mg/m³</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>2 mg/m³</td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory hand protection</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional / industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory face protection</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Purple
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 213 ºF
- Vapour pressure at 68 ºF: 2345 Pa
- Vapour pressure at 122 ºF: 92.67 (12.36 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1082.3 kg/m³
- Relative density at 68 ºF: 1.082
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):

CONTINUED ON NEXT PAGE
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3); 2,2',2''-nitritriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>LD50 oral 388 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>10300.41 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>79215.73 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>822.05 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide</td>
<td>LC50 80 mg/L (48 h)</td>
<td>Gambussia afinis</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g Concentration 100 mg/L</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g Period 14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32 % Biodegradable 96 %</td>
<td></td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa·m²/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High Dry soil No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF) Moist soil Yes</td>
<td></td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:
## SECTION 14: TRANSPORT INFORMATION (continued)

| 14.1 | UN number: | UN1814 |
| 14.2 | UN proper shipping name: | POTASSIUM HYDROXIDE SOLUTION |
| 14.3 | Transport hazard class(es): | 8 |
| 14.4 | Packing group, if applicable: | II |
| 14.5 | Environmental hazard: | No |
| 14.6 | Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
| 14.7 | Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

| 14.1 | UN number: | UN1814 |
| 14.2 | UN proper shipping name: | POTASSIUM HYDROXIDE SOLUTION |
| 14.3 | Transport hazard class(es): | 8 |
| 14.4 | Packing group, if applicable: | II |
| 14.5 | Environmental hazard: | No |
| 14.6 | Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
| 14.7 | Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

| 14.1 | UN number: | UN1814 |
| 14.2 | UN proper shipping name: | POTASSIUM HYDROXIDE SOLUTION |
| 14.3 | Transport hazard class(es): | 8 |
| 14.4 | Packing group, if applicable: | II |
| 14.5 | Environmental hazard: | No |
| 14.6 | Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
| 14.7 | Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

## SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA) : Potassium hydroxide ; 2-butoxyethanol
Massachusetts RTK - Substance List: Potassium hydroxide
New Jersey Worker and Community Right-to-Know Act: Potassium hydroxide ; 2-butoxyethanol
New York RTK - Substance list: Potassium hydroxide ; 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: Potassium hydroxide ; 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Potassium hydroxide ; 2-butoxyethanol
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Potassium hydroxide ; 2-butoxyethanol
Rhode Island - Hazardous substances RTK: Potassium hydroxide ; 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Potassium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
### SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>CL50</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW</td>
<td>Octanol-water partition coefficient</td>
</tr>
<tr>
<td>Koc</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1310 - Spectrum® High Pressure Detergent

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
High foaming liquid detergent for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Irrit. 2: Eye irritation, Category 2, H319
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
29 CFR 1910.1200:
Warning

Hazard statements:
Eye Irrit. 2: H319 - Causes serious eye irritation
Skin Irrit. 2: H315 - Causes skin irritation
Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P332+P313: If skin irritation occurs: Get medical advice/attention
P337+P313: If eye irritation persists: Get medical advice/attention

Substances that contribute to the classification
Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol

Acute Toxicity Estimate (ATE mix):
0 % (oral), 15.55 % (dermal), 15.55 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulphonate Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>Sodium xylenesulphonate Eye Irrit. 2: H319 - Warning</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. - Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. - Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. - Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F

B. - General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

#### 8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Liquid
Appearance: Transparent
Color: Yellow
Odor: Cologne
Odour threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: 217 ºF
Vapour pressure at 68 °F: 2327 Pa
Vapour pressure at 122 °F: 91.97 (12.26 kPa)
Evaporation rate at 68 °F: Non-applicable *

Product description:
Density at 68 °F: 1034.4 kg/m³
Relative density at 68 °F: 1.034
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: Non-applicable *
Concentration: Non-applicable *
pH: 8 - 10 at 100 %
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Advisory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Contact with air</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Increase in temperature</td>
<td>Precaution</td>
</tr>
<tr>
<td>Sunlight</td>
<td>Precaution</td>
</tr>
<tr>
<td>Humidity</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Category</th>
<th>Incompatible Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acids</td>
<td>Avoid strong acids</td>
</tr>
<tr>
<td>Water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Oxidising</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Combustible</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Others</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Sodium xylenesulphonate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>LD50 oral 7200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>3117.45 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>17214.81 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>178.64 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

Date of compilation: 12/14/2018            Version: 1
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable

Labels:

Non-applicable

14.4 Packing group, if applicable: Non-applicable

14.5 Environmental hazard: No

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises

Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):

Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Sodium xylenesulphonate
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Sodium xylenesulphonate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)
SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H319: Causes serious eye irritation
H315: Causes skin irritation

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1320 - Spectrum Foaming Brush Detergent – Red

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Irrit. 2: Eye irritation, Category 2, H319
   Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
   29 CFR 1910.1200:
   Warning

   Hazard statements:
   Eye Irrit. 2: H319 - Causes serious eye irritation
   Skin Irrit. 2: H315 - Causes skin irritation

   Precautionary statements:
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P302+P352: IF ON SKIN: Wash with plenty of soap and water
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P332+P313: If skin irritation occurs: Get medical advice/attention
   P337+P313: If eye irritation persists: Get medical advice/attention

   Substances that contribute to the classification
   Alkylbenzyl Sodium Sulfonate

   Acute Toxicity Estimate (ATE mix):
   1.5 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:
   Chemical description: Aqueous mixture composed of chemical products for cleaning products

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. Exact percentage values for components are proprietary in accordance with 29 CFR 1910.1200(i). Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>15 - &lt;35 %</td>
</tr>
</tbody>
</table>

| Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning |

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By Inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
**SECTION 5: FIRE-FIGHTING MEASURES (continued)**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

6.1 **Personal precautions, protective equipment and emergency procedures:**
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 **Environmental precautions:**
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 **Methods and materials for containment and cleaning up:**
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 **Reference to other sections:**
See sections 8 and 13.

**SECTION 7: HANDLING AND STORAGE**

7.1 **Precautions for safe handling:**
A.- Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 **Conditions for safe storage, including any incompatibilities:**
A.- Technical measures for storage

Minimum Temp.: 41 °F

Maximum Temp.: 86 °F

Maximum time: 18 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 **Specific end use(s):**
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 **Control parameters:**

- CONTINUED ON NEXT PAGE -
### 8.2 Appropriate engineering controls:

**A.** Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

**B.** Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

**C.** Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

**D.** Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

**E.** Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

**F.** Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

### Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Liquid
Appearance: Transparent
Color: Red
Odor: Fruity
Odor threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: 214 °F
Vapour pressure at 68 °F: 2343 Pa
Vapour pressure at 122 °F: 92.59 (12.34 kPa)
Evaporation rate at 68 °F: Non-applicable *

Product description:
Density at 68 °F: 1042 kg/m³
Relative density at 68 °F: 1.042
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: Non-applicable *
Concentration: Non-applicable *
pH: Non-applicable *
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 °F)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 860 °F
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Combustive materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Produces skin inflammation.
   - Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
   - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
     IARC: Benzyl acetate (3); Coumarin (3)
   - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**F -** Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

**G -** Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**H -** Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**Other information:**

Non-applicable

**Specific toxicity information on the substances:**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

**Acute Toxicity Estimate (ATE mix):**

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2777.78 mg/kg (Calculation method) 1.5 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method) Non-applicable</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method) Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 **Ecotoxicity (aquatic and terrestrial, where available):**

Not available

12.2 **Persistence and degradability:**

Not available

12.3 **Bioaccumulative potential:**

Not available

12.4 **Mobility in soil:**

Not available

12.5 **Results of PBT and vPvB assessment:**

Non-applicable

12.6 **Other adverse effects:**

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 **Disposal methods:**

Waste management (disposal and evaluation):

- CONTINUED ON NEXT PAGE -
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:
With regard to IATA/ICAO 2018:

- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA): Alkylbenzyl Sodium Sulfonate
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: Non-applicable
   New York RTK - Substance list: Non-applicable
   Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
   CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Non-applicable
   Rhode Island - Hazardous substances RTK: Non-applicable
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

   Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

   Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 – Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H319: Causes serious eye irritation

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Irrit. 2: H319 - Causes serious eye irritation
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:

Date of compilation: 12/17/2018   Version: 1
SECTION 16: OTHER INFORMATION (continued)

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**
Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol–water partition coefficient
Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current USA legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.
**SECTION 1: IDENTIFICATION**

1.1 **GHS Product identifier:** 1323 - Spectrum® Foaming Brush – Blue

1.2 **Recommended use of the chemical and restrictions on use:**

Relevant uses: Chemical cleaning products

High foaming liquid detergent for use in commercial car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**

Cleaning Systems, Inc.

1997 American Blvd

54115 De Pere - United States

Phone.: 9203372175 - Fax: 9203379410

chemcompliance@cleaningsystemsinc.com

http://cleaningsystemsinc.com

1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

**SECTION 2: HAZARD(S) IDENTIFICATION**

2.1 **Classification of the substance or mixture:**

29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Eye Irrit. 2: Eye irritation, Category 2, H319

Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 **Label elements:**

29 CFR 1910.1200:

Warning

Hazard statements:

Eye Irrit. 2: H319 - Causes serious eye irritation

Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:

P264: Wash thoroughly after use

P280: Wear protective gloves/protective clothing/eye protection/face protection

P302+P352: IF ON SKIN: Wash with plenty of soap and water

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P332+P313: If skin irritation occurs: Get medical advice/attention

P337+P313: If eye irritation persists: Get medical advice/attention

**Substances that contribute to the classification**

Alkylbenzyl Sodium Sulfonate

**Acute Toxicity Estimate (ATE mix):**

1.5 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 **Other hazards which do not result in classification:**

Non-applicable

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

3.1 **Substances:**

Non-applicable

3.2 **Mixtures:**

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>Acute Tox. 4:</td>
<td>H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By Inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.
B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F
B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace
### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>Ceiling Values - TWA PEL</td>
<td></td>
</tr>
</tbody>
</table>

#### 8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Mandatory hand protection]</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional / industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29 CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Mandatory face protection]</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29 CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1, ISO 3864-1:2002</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eyewash stations</td>
<td>DIN 12 899, ISO 3864-1:2002</td>
</tr>
</tbody>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**9.1 Information on basic physical and chemical properties:**

For complete information see the product datasheet.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance:</strong></td>
<td></td>
</tr>
<tr>
<td>Physical state at 68 ºF:</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance:</td>
<td>Transparent</td>
</tr>
<tr>
<td>Color:</td>
<td>Blue</td>
</tr>
<tr>
<td>Odor:</td>
<td>Fruity</td>
</tr>
<tr>
<td>Odour threshold:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Volatile:</strong></td>
<td></td>
</tr>
<tr>
<td>Boiling point at atmospheric pressure:</td>
<td>214 ºF</td>
</tr>
<tr>
<td>Vapour pressure at 68 ºF:</td>
<td>2343 Pa</td>
</tr>
<tr>
<td>Vapour pressure at 122 ºF:</td>
<td>92.59 (12.34 kPa)</td>
</tr>
<tr>
<td>Evaporation rate at 68 ºF:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Product description:</strong></td>
<td></td>
</tr>
<tr>
<td>Density at 68 ºF:</td>
<td>1042.4 kg/m³</td>
</tr>
<tr>
<td>Relative density at 68 ºF:</td>
<td>1.042</td>
</tr>
<tr>
<td>Dynamic viscosity at 68 ºF:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Kinematic viscosity at 68 ºF:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Kinematic viscosity at 104 ºF:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Concentration:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>pH:</td>
<td>8 - 10 at 100 %</td>
</tr>
<tr>
<td>Vapour density at 68 ºF:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water 68 ºF:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Solubility in water at 68 ºF:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Solubility properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Melting point/freezing point:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Oxidising properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Flammability:</strong></td>
<td></td>
</tr>
<tr>
<td>Flash Point:</td>
<td>Non Flammable (&gt;199.4 ºF)</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature:</td>
<td>615 ºF</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.*

### SECTION 10: STABILITY AND REACTIVITY

**10.1 Reactivity:**

- CONTINUED ON NEXT PAGE -
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: Benzyl acetate (3); Coumarin (3); 2,2’,2”-nitrilotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50 oral</td>
<td>500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>LD50 dermal</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Acute toxicity Estimate</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2777.78 mg/kg (Calculation method)</td>
<td>1.5 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

Not available

12.2 Persistence and degradability:

Not available

12.3 Bioaccumulative potential:

Not available

12.4 Mobility in soil:

Not available

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in
direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-
dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and
   the IBC Code): Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and
   the IBC Code): Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA) : Alkylbenzyl Sodium Sulfonate
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: Non-applicable
   New York RTK - Substance list: Non-applicable
   Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
   CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Non-applicable
   Rhode Island - Hazardous substances RTK: Non-applicable
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
   This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
   H315: Causes skin irritation
   H319: Causes serious eye irritation

Texts of the legislative phrases mentioned in section 3:
   The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
   Acute Tox. 4: H302 - Harmful if swallowed
   Eye Irrit. 2: H319 - Causes serious eye irritation
   Skin Irrit. 2: H315 - Causes skin irritation
   STOT SE 3: H335 - May cause respiratory irritation

- CONTINUED ON NEXT PAGE -
SECTION 16: OTHER INFORMATION (continued)

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
## SECTION 1: IDENTIFICATION

1.1 **GHS Product identifier:** 1324 - Spectrum® Foaming Brush – Yellow

1.2 **Recommended use of the chemical and restrictions on use:**
   Relevant uses: Chemical cleaning products
   High foaming liquid detergent for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

## SECTION 2: HAZARD(S) IDENTIFICATION

2.1 **Classification of the substance or mixture:**
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Irrit. 2: Eye irritation, Category 2, H319
   Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 **Label elements:**
   29 CFR 1910.1200:
   Warning

   **Hazard statements:**
   Eye Irrit. 2: H319 - Causes serious eye irritation
   Skin Irrit. 2: H315 - Causes skin irritation

   **Precautionary statements:**
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P302+P352: IF ON SKIN: Wash with plenty of soap and water
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P332+P313: If skin irritation occurs: Get medical advice/attention
   P337+P313: If eye irritation persists: Get medical advice/attention

   **Substances that contribute to the classification**
   Alkylbenzyl Sodium Sulfonate

   **Acute Toxicity Estimate (ATE mix):**
   1.5 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 **Other hazards which do not result in classification:**
   Non-applicable

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 **Substances:**
   Non-applicable

3.2 **Mixtures:**
   - CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>15 - &lt;35 %</td>
</tr>
</tbody>
</table>

Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By Inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Yellow
- Odor: Fruity
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 214 °F
- Vapour pressure at 68 °F: 2343 Pa
- Vapour pressure at 122 °F: 92.59 (12.34 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1044.8 kg/m³
- Relative density at 68 °F: 1.045
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 8 - 10 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 860 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

### 9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refractive index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

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## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity:

- CONTINUED ON NEXT PAGE -
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Produces skin inflammation.
   - Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
   - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3. 
     IARC: Benzyl acetate (3); Coumarin (3)
   - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>LD50 oral</td>
<td>500 mg/kg (ATEi)</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th></th>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2777.78 mg/kg (Calculation method)</td>
<td>1.5 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
Not available

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:
Not available

12.4 Mobility in soil:
Not available

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

- CONTINUED ON NEXT PAGE -
### SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

### SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:

- **14.1 UN number:** Non-applicable
- **14.2 UN proper shipping name:** Non-applicable
- **14.3 Transport hazard class(es):** Non-applicable
  - Labels: Non-applicable
- **14.4 Packing group, if applicable:** Non-applicable
- **14.5 Environmental hazard:** No
- **14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**
  - Physico-Chemical properties: see section 9
- **14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

- **14.1 UN number:** Non-applicable
- **14.2 UN proper shipping name:** Non-applicable
- **14.3 Transport hazard class(es):** Non-applicable
  - Labels: Non-applicable
- **14.4 Packing group, if applicable:** Non-applicable
- **14.5 Environmental hazard:** No
- **14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**
  - Physico-Chemical properties: see section 9
- **14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA) : Alkylbenzyl Sodium Sulfonate
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: Non-applicable
   New York RTK - Substance list: Non-applicable
   Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
   CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Non-applicable
   Rhode Island - Hazardous substances RTK: Non-applicable
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H319: Causes serious eye irritation

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Irrit. 2: H319 - Causes serious eye irritation
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation
Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1329 - Spectrum® Foaming Brush – White

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products

High foaming liquid detergent for use in commercial car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Eye Irrit. 2: Eye irritation, Category 2, H319

Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:

29 CFR 1910.1200:

Warning

Hazard statements:

Eye Irrit. 2: H319 - Causes serious eye irritation

Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:

P264: Wash thoroughly after use

P280: Wear protective gloves/protective clothing/eye protection/face protection

P302+P352: IF ON SKIN: Wash with plenty of soap and water

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P332+P313: If skin irritation occurs: Get medical advice/attention

P337+P313: If eye irritation persists: Get medical advice/attention

Substances that contribute to the classification

Alkylbenzyl Sodium Sulfonate

Acute Toxicity Estimate (ATE mix):

1.5 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Non-applicable

3.2 Mixtures:

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 **Description of necessary measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By Inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 **Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

4.3 **Indication of immediate medical attention and special treatment needed, if necessary:**

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 **Suitable (and unsuitable) extinguishing media:**

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 **Specific hazards arising from the chemical:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 **Special protective equipment and precautions for fire-fighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. - Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. - Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. - Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B. - General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace
### 8.2 Appropriate engineering controls:

**A. Individual protection measures, such as personal protective equipment**

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

**B. Respiratory protection**

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

**C. Specific protection for the hands**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="#">Mandatory hand protection</a></td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

**D. Ocular and facial protection**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="#">Mandatory face protection</a></td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

**E. Bodily protection**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

**F. Additional emergency measures**

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>DIN 12 899</td>
<td>ISO 3864-1:2002</td>
</tr>
</tbody>
</table>

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 ºF: Liquid
Appearance: Transparent
Color: White
Odor: Fruity
Odour threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: 214 ºF
Vapour pressure at 68 ºF: 2344 Pa
Vapour pressure at 122 ºF: 92.61 (12.35 kPa)
Evaporation rate at 68 ºF: Non-applicable *

Product description:
Density at 68 ºF: 1040.3 kg/m³
Relative density at 68 ºF: 1.04
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: 8 - 10 at 100 %
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 860 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 ºF: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

- CONTINUED ON NEXT PAGE -
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Benzyl acetate (3); Coumarin (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other Information:

Non-applicable

Specific toxicology information on the substances:

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<tr>
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<th>Genus</th>
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<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
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<td></td>
<td>LC50 inhalation Non-applicable</td>
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</table>

Acute Toxicity Estimate (ATE mix):

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<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>4219.41 mg/kg (Calculation method) 1.5 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method) Non-applicable</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method) Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
Not available

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:
Not available

12.4 Mobility in soil:
Not available

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):

CONTINUED ON NEXT PAGE -
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**
Legislation related to waste management:

40 CFR Part 261 - IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

**SECTION 14: TRANSPORT INFORMATION**

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:
SECTION 14: TRANSPORT INFORMATION (continued)

| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group, if applicable: | Non-applicable |
| 14.5 Environmental hazard: | Non-applicable |
| 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises | See section 9 |

Physico-Chemical properties: See section 9

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
- California Proposition 65: Non-applicable
- The Toxic Substances Control Act (TSCA) - Alkylbenzyl Sodium Sulfonate
- Massachusetts RTK - Substance List: Non-applicable
- New Jersey Worker and Community Right-to-Know Act: Non-applicable
- New York RTK - Substance list: Non-applicable
- Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
- CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: Non-applicable
- Rhode Island - Hazardous substances RTK: Non-applicable
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
- H315: Causes skin irritation
- H319: Causes serious eye irritation

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
- Acute Tox. 4: H302 - Harmful if swallowed
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Skin Irrit. 2: H315 - Causes skin irritation
- STOT SE 3: H335 - May cause respiratory irritation

- CONTINUED ON NEXT PAGE -
SECTION 16: OTHER INFORMATION (continued)

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1330 - Spectrum® Tire & Wheel Cleaner

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
High alkaline liquid presoak and high pressure detergent for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor

Substances that contribute to the classification
Sodium hydroxide

Acute Toxicity Estimate (ATE mix):
16.35 % (oral), 19.28 % (dermal), 19.28 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

   **Chemical description:** Aqueous mixture composed of chemical products for cleaning products

   **Components:**

   Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 1344-09-8</td>
<td>Silicic acid, sodium salt (2.6 &lt; MR &lt;=3.2)</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Skin Corr. 1A: H314 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

   Request medical assistance immediately, showing the SDS of this product.

   **By inhalation:**

   This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

   **By skin contact:**

   Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

   **By eye contact:**

   Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

   **By ingestion/aspiration:**

   Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

   Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

   Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

   Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

   - CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.
B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F
B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
SECTION 7: HANDLING AND STORAGE (continued)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>ISO 3864-1:2002</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ISO 3864-1:2002</td>
<td>Eyewash stations</td>
<td>Din 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Green
- Odor: Mild
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 216 ºF
- Vapour pressure at 68 ºF: 2332 Pa
- Vapour pressure at 122 ºF: 92.17 (12.29 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1057.6 kg/m³
- Relative density at 68 ºF: 1.058
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: >13
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th></th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3); 2,2',2''-nitrilotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral: 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal: 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation: 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>30408.27 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>21997.04 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>228.27 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50: 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50: 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50: 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>LC50</td>
<td>Leuciscus idus</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>189 mg/L (48 h)</td>
<td>Crangon crangon</td>
</tr>
<tr>
<td>EC50</td>
<td>33 mg/L</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>EC50</td>
<td>Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5: 0.71 g O2/g</td>
<td>100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD: 2.2 g O2/g</td>
<td>14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD: 0.32</td>
<td>% Biodegradable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF: 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log: 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential: Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc: 8</td>
<td>Henry: 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion: Very High</td>
<td>Dry soil: No</td>
</tr>
<tr>
<td></td>
<td>Surface tension: 2.729E-2 N/m (77 °F)</td>
<td>Moist soil: Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>UN1824</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>SODIUM HYDROXIDE SOLUTION</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

#### Transport of dangerous goods by sea:

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>UN1824</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>SODIUM HYDROXIDE SOLUTION</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

#### Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>UN1824</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>SODIUM HYDROXIDE SOLUTION</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Silicic acid, sodium salt (2.6 < MR <=3.2)
The Toxic Substances Control Act (TSCA) : 2-butoxyethanol ; Silicic acid, sodium salt (2.6 < MR <=3.2) ; Sodium hydroxide
Massachusetts RTK - Substance List: Sodium hydroxide
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol ; Sodium hydroxide
New York RTK - Substance list: 2-butoxyethanol ; Sodium hydroxide
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol ; Sodium hydroxide
CANADA-Domestic Substances List (DSL): 2-butoxyethanol ; Silicic acid, sodium salt (2.6 < MR <=3.2) ; Sodium hydroxide
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol ; Sodium hydroxide
Rhode Island - Hazardous substances RTK: 2-butoxyethanol ; Sodium hydroxide
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
SECTION 16: OTHER INFORMATION (continued)

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1332 - Spectrum® Tire & Wheel Cleaner EC

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
High alkaline liquid presoak and high pressure detergent for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310:Immediately call a poison center/doctor

Substances that contribute to the classification:
Surfactant Mixture ; Sodium hydroxide

Acute Toxicity Estimate (ATE mix):
16.53 % (oral), 19.46 % (dermal), 19.46 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures: Aqueous mixture composed of chemical products for cleaning products

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Surfactant Mixture Acute Tox. 4: H302+H332; Eye Dam. 1: H318; Skin Corr. 1A: H314 - Danger</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 1344-09-8</td>
<td>Silicic acid, sodium salt (2.6 &lt; MR &lt;=3.2) Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide Skin Corr. 1A: H314 - Danger</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.
SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5
7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Substance</th>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL</td>
<td>50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL</td>
<td>240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. - Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
Physical state at 68 ºF: Liquid
Appearance: Transparent
Color: Green
Odor: Mild
Odour threshold: Non-applicable *

**Volatile:**
Boiling point at atmospheric pressure: 216 ºF
Vapour pressure at 68 ºF: 2332 Pa
Vapour pressure at 122 ºF: 92.18 (12.29 kPa)
Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
Density at 68 ºF: 1061.2 kg/m³
Relative density at 68 ºF: 1.061
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: >13
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

**Flammability:**
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.
Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3); 2,2’,2´-nitrotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>30342.84 mg/kg (Calculation method) 16.53 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>21947.99 mg/kg (Calculation method) 19.46 %</td>
</tr>
<tr>
<td>Inhalation</td>
<td>227.76 mg/L (4 h) (Calculation method) 19.46 %</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

### Identification

<table>
<thead>
<tr>
<th>Substance</th>
<th>LC50</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>EC50</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>33 mg/L</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**12.2 Persistence and degradability:**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>0.71 g O2/g</td>
<td>100 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>2.2 g O2/g</td>
<td>14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>% Biodegradable</td>
</tr>
<tr>
<td></td>
<td>0.32</td>
<td>96 %</td>
</tr>
</tbody>
</table>

**12.3 Bioaccumulative potential:**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Pow Log</td>
</tr>
<tr>
<td></td>
<td>0.83</td>
</tr>
<tr>
<td></td>
<td>Potential</td>
</tr>
<tr>
<td></td>
<td>Low</td>
</tr>
</tbody>
</table>

**12.4 Mobility in soil:**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc</td>
<td>1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>Very High</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>2.72E-2 N/m (77 °F)</td>
</tr>
<tr>
<td></td>
<td>Moist soil</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**12.5 Results of PBT and vPvB assessment:**

Non-applicable

**12.6 Other adverse effects:**

This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

**13.1 Disposal methods:**

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:

- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Silicic acid, sodium salt (2.6 < MR <=3.2)
The Toxic Substances Control Act (TSCA) : 2-butoxyethanol ; Silicic acid, sodium salt (2.6 < MR <=3.2) ; Sodium hydroxide
Massachusetts RTK - Substance List: Sodium hydroxide
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol ; Sodium hydroxide
New York RTK - Substance list: 2-butoxyethanol ; Sodium hydroxide
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol ; Sodium hydroxide
CANADA-Domestic Substances List (DSL): 2-butoxyethanol ; Silicic acid, sodium salt (2.6 < MR <=3.2) ; Sodium hydroxide
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol ; Sodium hydroxide
Rhode Island - Hazardous substances RTK: 2-butoxyethanol ; Sodium hydroxide
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BODS: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1342 - Spectrum® Clear Coat Sealant Piña Colada

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products
Drying agent for use in commercial car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Carc. 2: Carcinogenicity, Category 2, H351
Eye Dam. 1: Serious eye damage, Category 1, H318

2.2 Label elements:

29 CFR 1910.1200:
Danger

Hazard statements:
Carc. 2: H351 - Suspected of causing cancer
Eye Dam. 1: H318 - Causes serious eye damage
Precautionary statements:
P201: Obtain special instructions before use
P202: Do not handle until all safety precautions have been read and understood
P280: Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313: IF exposed or concerned: Get medical advice/attention
P310: Immediately call a poison center/doctor
P405: Store locked up
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Quaternary Ammonium Compounds ; Amides, coco, N,N-bis(hydroxyethyl); Diethanolamine

Acute Toxicity Estimate (ATE mix):
20.75 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>Diethanolamine</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By Inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.
SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 ºF
Maximum Temp.: 120 ºF

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>8-hour TWA PEL 400 ppm, Ceiling Values - TWA PEL 980 mg/m³</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>8-hour TWA PEL 5 mg/m³, Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>CAS: 56-81-5</td>
<td></td>
</tr>
<tr>
<td>Ethyl acetate</td>
<td>8-hour TWA PEL 400 ppm, Ceiling Values - TWA PEL 1400 mg/m³</td>
</tr>
<tr>
<td>CAS: 141-78-6</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Mandatory hand protection]</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Mandatory face protection]</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Red
- Odor: Mild
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 217 °F
- Vapour pressure at 68 °F: 2348 Pa
- Vapour pressure at 122 °F: 92.76 (12.37 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1016.7 kg/m³
- Relative density at 68 °F: 1.017
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 7
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 707 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.
  - IARC: Propan-2-ol (3); Benzyl acetate (3); Coumarin (3); Amides, coco, N,N-bis(hydroxyethyl) (2B); Diethanolamine (2B); E-caprolactam (4)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, however, it does contain substances which are classified as dangerous due to repetitive exposure. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>LD50 oral 12200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>LD50 oral 710 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>LD50 dermal 12200 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral 13208.33 mg/kg (Calculation method)</td>
<td>20.75 %</td>
</tr>
<tr>
<td>Dermal &gt;5000 mg/kg (Calculation method)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Inhalation &gt;20 mg/L (4 h) (Calculation method)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Date of compilation: 6/11/2019
Version: 1
## SECTION 12: ECOLOGICAL INFORMATION (continued)

### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>LC50 3.6 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>EC50 4.2 mg/L (34 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 2.2 mg/L (96 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>LC50 800 mg/L (24 h)</td>
<td>Carassius auratus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>EC50 180 mg/L (24 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 75 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
</tbody>
</table>

### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethanolamine</td>
<td>BOD5 0.03 g O2/g Concentration 100 mg/L</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>COD 1.52 g O2/g Period 21 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.02 % Biodegradable 54 %</td>
<td></td>
</tr>
</tbody>
</table>

### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethanolamine</td>
<td>BCF 1</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>Pow Log -1.43</td>
</tr>
<tr>
<td>Potential</td>
<td>Low</td>
</tr>
</tbody>
</table>

### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethanolamine</td>
<td>Koc Non-applicable</td>
<td>Henry Non-applicable</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>Conclusion Non-applicable</td>
<td>Dry soil Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Surface tension 3.4E-2 N/m (299.21 °F)</td>
<td>Moist soil Non-applicable</td>
</tr>
</tbody>
</table>

### 12.5 Results of PBT and vPvB assessment:

Non-applicable

### 12.6 Other adverse effects:

Not described

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Disposal methods:

#### Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

#### Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

## SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Diethanolamine
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Diethanolamine
The Toxic Substances Control Act (TSCA): Quaternary Ammonium Compounds; Amides, coco, N,N-bis(hydroxyethyl); Diethanolamine
Massachusetts RTK - Substance List: Diethanolamine
New Jersey Worker and Community Right-to-Know Act: Diethanolamine
New York RTK - Substance list: Diethanolamine
Pennsylvania Worker and Community Right-to-Know Law: Diethanolamine
CANADA-Domestic Substances List (DSL): Quaternary Ammonium Compounds; Amides, coco, N,N-bis(hydroxyethyl); Diethanolamine
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Diethanolamine
Rhode Island - Hazardous substances RTK: Diethanolamine
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Diethanolamine (100 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage
H351: Suspected of causing cancer

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Carc. 2: H351 - Suspected of causing cancer
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Skin Irrit. 2: H315 - Causes skin irritation
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).
Abbreviations and acronyms:
### SECTION 16: OTHER INFORMATION (continued)

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).

Date of compilation: 6/11/2019      Version: 1
### SECTION 1: IDENTIFICATION

1.1 **GHS Product identifier:** 1343 - Spectrum® Clear Coat Sealant Berry  

1.2 **Recommended use of the chemical and restrictions on use:**  
   Relevant uses: Chemical cleaning products  
   Drying agent for use in commercial car washes.  
   Uses advised against: All uses not specified in this section or in section 7.3  

1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**  
   Cleaning Systems, Inc.  
   1997 American Blvd  
   54115 De Pere - United States  
   Phone.: 9203372175 - Fax: 9203379410  
   chemcompliance@cleaningsystemsinc.com  
   http://cleaningsystemsinc.com  

1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

### SECTION 2: HAZARD(S) IDENTIFICATION

2.1 **Classification of the substance or mixture:**  
   29 CFR 1910.1200:  
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.  
   Eye Dam. 1: Serious eye damage, Category 1, H318

2.2 **Label elements:**  
   29 CFR 1910.1200:  
   Danger

   **Hazard statements:**  
   Eye Dam. 1: H318 - Causes serious eye damage

   **Precautionary statements:**  
   P280: Wear protective gloves/protective clothing/eye protection/face protection  
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
   P310: Immediately call a poison center/doctor

   **Substances that contribute to the classification:**  
   Surfactant Mixture; Quaternary Ammonium Compounds

   **Acute Toxicity Estimate (ATE mix):**  
   22.95 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 **Other hazards which do not result in classification:**  
   Non-applicable

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 **Substances:**  
   Non-applicable

3.2 **Chemical description:**  
   Aqueous mixture composed of chemical products for cleaning products
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture</td>
<td>15 - &lt;35%</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>CAS: 100-52-7</td>
<td>Benzaldehyde</td>
<td>&lt;5%</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. - Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. - Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. - Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B. - General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>8-hour TWA PEL 400 ppm, Ceiling Values - TWA PEL 980 mg/m³</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>8-hour TWA PEL 5 mg/m³, Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>CAS: 56-81-5</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Blue
- Odor: Mild
- Odour threshold: Non-applicable *

**Vapour density at atmospheric pressure:**
- Boiling point at atmospheric pressure: 217 °F
- Vapour pressure at 68 °F: 2343 Pa
- Vapour pressure at 122 °F: 92.56 (12.34 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1018 kg/m³
- Relative density at 68 °F: 1.018
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 7
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 377 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

#### 9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

### SECTION 10: STABILITY AND REACTIVITY

#### 10.1 Reactivity:

- CONTINUED ON NEXT PAGE -
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Propan-2-ol (3); Brilliant blue FCF (C.I.4290/C.I.Acid Blue 9) (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other Information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Benzaldehyde</td>
<td>LD50 oral 1100 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 100-52-7</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>10971.52 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzaldehyde</td>
<td>LC50 13.8 mg/L (96 h)</td>
<td>Carassius auratus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 100-52-7</td>
<td>EC50 50 mg/L (24 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzaldehyde</td>
<td>BODS 1.62 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 100-52-7</td>
<td>COD 1.98 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD 0.82</td>
<td>% Biodegradable 66 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzaldehyde</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 100-52-7</td>
<td>Pow Log 1.48</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:
13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Quaternary Ammonium Compounds; Benzaldehyde
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: Benzaldehyde
New York RTK - Substance list: Benzaldehyde
Pennsylvania Worker and Community Right-to-Know Law: Benzaldehyde
CANADA-Domestic Substances List (DSL): Quaternary Ammonium Compounds; Benzaldehyde
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Benzaldehyde
Rhode Island - Hazardous substances RTK: Benzaldehyde
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
product.

Other legislation:

The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)
SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself, they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
Safety data sheet
according to 29 CFR 1910.1200

1373 - No-Freeze Foaming - White

SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1373 - No-Freeze Foaming - White

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Foaming liquid containing methanol for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Acute Tox. 3: Acute toxicity on contact with skin, Category 3, H311
   Acute Tox. 3: Acute toxicity if swallowed, Category 3, H301
   Acute Tox. 3: Acute inhalation toxicity, Category 3, H331
   Flam. Liq. 2: Flammable liquids, Category 2, H225
   STOT SE 1: Specific target organ toxicity — single exposure, Category 1, H370

2.2 Label elements:
   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Acute Tox. 3: H311 - Toxic in contact with skin
   Acute Tox. 3: H301 - Toxic if swallowed
   Acute Tox. 3: H331 - Toxic if inhaled
   Flam. Liq. 2: H225 - Highly flammable liquid and vapour
   STOT SE 1: H370 - Causes damage to organs

   Precautionary statements:
   P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor
   P302+P352: IF ON SKIN: Wash with plenty of soap and water
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   P370+P378: In case of fire: Use ABC powder extinguisher to put it out
   P403+P233: Store in a well-ventilated place. Keep container tightly closed
   P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

   Substances that contribute to the classification
   Methanol

2.3 Other hazards which do not result in classification:
   Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products
Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 67-56-1</td>
<td>Methanol</td>
<td>85 - &lt;100 %</td>
</tr>
</tbody>
</table>

Acute Tox. 3: H301+H311+H331; Flam. Liq. 2: H225; STOT SE 1: H370 - Danger

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By Inhalation:
Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request medical assistance immediately, showing the SDS of this product. Induce vomiting (ONLY IN CONSCIOUS PEOPLE!) and then ingest large quantities of liquid to dilute the toxin. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers (CO₂). IT IS RECOMMENDED NOT to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:
The characteristic of toxicity per RCRA could apply to the unused product if it becomes a waste material. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.
B.- Technical recommendations for the prevention of fires and explosions
Because the product is a flammable liquid, storage should meet the requirement of 29 CFR 1910.106, Flammable and Combustible Liquids Code. Transfer in well ventilated areas, preferably through localized extraction. Fully control sources of ignition (mobile phones, sparks,…) and ventilate during cleaning operations. Avoid the existence of dangerous atmospheres inside containers, applying inertization systems where possible. Transfer at a slow speed to avoid the creation of electrostatic charges. Against the possibility of electrostatic charges: ensure a perfect equipotential connection, always use groundings, do not wear work clothes made of acrylic fibres, preferably wearing cotton clothing and conductive footwear. Comply with the essential security requirements for equipment and systems and with the minimum requirements for protecting the security and health of workers. Consult section 10 for conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 ºF
Maximum Temp.: 120 ºF
B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
SECTION 7: HANDLING AND STORAGE (continued)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>8-hour TWA PEL 200 ppm</td>
</tr>
<tr>
<td>CAS: 67-56-1</td>
<td>Ceiling Values - TWA PEL 260 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment

Always provide effective general and, when necessary, local exhaust ventilation to maintain the ambient workplace atmosphere below the exposure limits. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures
### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>ISO 3864-1:2002</td>
<td></td>
</tr>
<tr>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
<td>ISO 3864-1:2002</td>
<td></td>
</tr>
</tbody>
</table>

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**9.1 Information on basic physical and chemical properties:**

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: White
- Odor: Solvent
- Odour threshold: Non-applicable *

**Vollatility:**
- Boiling point at atmospheric pressure: 149 °F
- Vapour pressure at 68 °F: 12607 Pa
- Vapour pressure at 122 °F: 407.38 (54.31 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 794.4 kg/m³
- Relative density at 68 °F: 0.794
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: Non-applicable *
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: 64 °F
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 867 °F
- Lower flammability limit: Not available
- Upper flammability limit: Not available

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Risk of combustion</td>
<td>Avoid direct impact</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Avoid direct impact</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Can be fatal if consumed. For more information see section 2.
   - Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
   - Acute toxicity: Inhalation after prolonged exposure may be lethal.
   - Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Can be fatal if the product is absorbed through the skin. For more information on the secondary effects of contact with the skin see section 2.
   - Contact with the eyes: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Non-applicable

- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.

- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

- Its ingestion, inhalation or absorption through the skin results in the risk of serious irreversible effects caused by a single exposure, not including effects which are carcinogenic, mutagenic or toxic for reproduction.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>LD50 oral 100 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 67-56-1</td>
<td>LD50 dermal 300 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 3 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>101.34 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>304.02 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>3.04 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>LC50 15400 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 67-56-1</td>
<td>EC50 12000 mg/L (96 h)</td>
<td>Nitroca spinipes</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 530 mg/L (168 h)</td>
<td>Microcystis aeruginosa</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol</td>
<td>BOD5 Non-applicable</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 67-56-1</td>
<td>COD 1.42 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 92 %</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol CAS: 67-56-1</td>
<td>BCF 3</td>
</tr>
<tr>
<td>Pow Log</td>
<td>-0.77</td>
</tr>
<tr>
<td>Potential</td>
<td>Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol CAS: 67-56-1</td>
<td>Koc Non-applicable</td>
<td>Henry Non-applicable</td>
</tr>
<tr>
<td>Conclusion Non-applicable</td>
<td>Dry soil Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Surface tension 2.355E-2 N/m (77 ºF)</td>
<td>Moist soil Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN1230
14.2 UN proper shipping name: METHANOL
14.3 Transport hazard class(es): 3
   Labels: 3, 6.1
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN1230
14.2 UN proper shipping name: METHANOL
14.3 Transport hazard class(es): 3
   Labels: 3, 6.1
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:

14.1 UN number: UN1230
14.2 UN proper shipping name: METHANOL
14.3 Transport hazard class(es): 3
   Labels: 3, 6.1
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Methanol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Methanol
   The Toxic Substances Control Act (TSCA) : Methanol
   Massachusetts RTK - Substance List: Methanol
   New Jersey Worker and Community Right-to-Know Act: Methanol
   New York RTK - Substance list: Methanol
   Pennsylvania Worker and Community Right-to-Know Law: Methanol
   CANADA-Domestic Substances List (DSL): Methanol
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Methanol
   Rhode Island - Hazardous substances RTK: Methanol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Methanol (5000 pounds)

Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)
SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H370: Causes damage to organs
H311: Toxic in contact with skin
H301: Toxic if swallowed
H331: Toxic if inhaled
H225: Highly flammable liquid and vapour

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 3: H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled
Flam. Liq. 2: H225 - Highly flammable liquid and vapour
STOT SE 1: H370 - Causes damage to organs

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
1401 - Foam-N-Kleen™

SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1401 - Foam-N-Kleen™

1.2 Recommended use of the chemical and restrictions on use:
Related uses: Chemical cleaning products
Liquid alkaline detergent for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Precautionary statements:
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P335: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor

Substances that contribute to the classification
Sodium Metasilicate; Sodium hydroxide

Acute Toxicity Estimate (ATE mix):
3.9 % (oral), 12.69 % (dermal), 12.69 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
</tr>
<tr>
<td>CAS: 6834-92-0</td>
<td>Sodium Metasilicate</td>
<td>Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>Skin Corr. 1A: H314 - Danger</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.
SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B. General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5
SECTION 7: HANDLING AND STORAGE (continued)

7.3 **Specific end use(s):**
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 **Control parameters:**
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td></td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td></td>
<td>50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td></td>
<td>240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 **Appropriate engineering controls:**

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 ºF: Liquid
Appearance: Transparent
Color: Yellow
Odor: Solvent
Odour threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: 216 ºF
Vapour pressure at 68 ºF: 2329 Pa
Vapour pressure at 122 ºF: 92.04 (12.27 kPa)
Evaporation rate at 68 ºF: Non-applicable *

Product description:
Density at 68 ºF: 1063.9 kg/m³
Relative density at 68 ºF: 1.064
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: >13 at 100 %
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

flammability:
Flash Point: Non Flammable (>199.4 ºF)
flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3. IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50 oral</td>
<td>1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>LD50 dermal</td>
<td>1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td>LC50 inhalation</td>
<td>11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50 oral</td>
<td>500 mg/kg (ATEi)</td>
<td>Rat</td>
</tr>
<tr>
<td>LD50 dermal</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>5827.27 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>18697.85 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>194.03 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC₅₀ 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC₅₀ 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC₅₀ 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>LC₅₀ 210 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 6834-92-0</td>
<td>EC₅₀ 216 mg/L (96 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC₅₀ Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>LC₅₀ 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>EC₅₀ 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC₅₀ Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD₅ 0.71 g O₂/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O₂/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD₅/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 4</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In the case the container has been in
direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-
dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:
### SECTION 14: TRANSPORT INFORMATION (continued)

| 14.1 | UN number: | UN3266 |
| 14.2 | UN proper shipping name: | CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate) |
| 14.3 | Transport hazard class(es): | 8 |
|      | Labels: | 8 |
| 14.4 | Packing group, if applicable: | II |
| 14.5 | Environmental hazard: | No |
| 14.6 | Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
|      | Physico-Chemical properties: | see section 9 |
| 14.7 | Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

| 14.1 | UN number: | UN3266 |
| 14.2 | UN proper shipping name: | CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate) |
| 14.3 | Transport hazard class(es): | 8 |
|      | Labels: | 8 |
| 14.4 | Packing group, if applicable: | II |
| 14.5 | Environmental hazard: | No |
| 14.6 | Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
|      | Physico-Chemical properties: | see section 9 |
| 14.7 | Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

| 14.1 | UN number: | UN3266 |
| 14.2 | UN proper shipping name: | CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate) |
| 14.3 | Transport hazard class(es): | 8 |
|      | Labels: | 8 |
| 14.4 | Packing group, if applicable: | II |
| 14.5 | Environmental hazard: | No |
| 14.6 | Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
|      | Physico-Chemical properties: | see section 9 |
| 14.7 | Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Sodium Metasilicate; Sodium hydroxide
Massachusetts RTK - Substance List: Sodium hydroxide
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol; Sodium hydroxide
New York RTK - Substance list: 2-butoxyethanol; Sodium hydroxide
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol; Sodium hydroxide
CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Sodium Metasilicate; Sodium hydroxide
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol; Sodium hydroxide
Rhode Island - Hazardous substances RTK: 2-butoxyethanol; Sodium hydroxide
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)
Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.
Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes skin irritation
Flam. Liq. 4: H227 - Combustible liquid
Met. Corr. 1: H290 - May be corrosive to metals
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1702 - Spray-N-Shine

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Tire dressing for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

2.2 Label elements:
29 CFR 1910.1200:
None

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products
Components:
None of the substances contained in the mixture are above the values fixed in Appendix D to § 1910.1200.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Consult a doctor in case of discomfort with this Safety data Sheet.

By inhalation:
In case of symptoms, move the person affected into fresh air.

By skin contact:
In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of modifications on the skin (stinging, redness, rashes, blisters,…), seek medical advice with this Safety data Sheet

By eye contact:
Rinse with water until the product has been eliminated. In case of problems, consult a doctor with the SDS of this product.

By ingestion/aspiration:
SECTION 4: FIRST-AID MEASURES (continued)

In case of consumption in large quantities, it is recommended to seek medical assistance.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable, low risk of fire by the inflammability characteristics of the product in normal conditions of storage, manipulation and use. In the case of the existence of sustained combustion as a result of improper manipulation, storage or use any type of extinguishing agent can be used (ABC Powder, water,...)

5.2 Specific hazards arising from the chemical:
Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
    Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
    Maintain order and cleanliness where dangerous products are used.
B.- Technical recommendations for the prevention of fires and explosions
    It is recommended to transfer at a slow speed to avoid the creation of electrostatic charges that could affect flammable products. Consult section 10 for conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
    Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
SECTION 7: HANDLING AND STORAGE (continued)

D.- Technical recommendations to prevent environmental risks
It is not necessary to take special measures to prevent environmental risks. For more information see subsection 6.2

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F
B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>8-hour TWA PEL: 0.75 ppm</td>
</tr>
<tr>
<td>CAS: 50-00-0</td>
<td>Ceiling Values - TWA PEL: 2 ppm</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

It is not necessary to take additional emergency measures.

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 68 °F: Liquid
Appearance: Emulsion
Color: Yellow
Odor: Not available
Odour threshold: Non-applicable *

Vapour pressure at 68 °F: 2354 Pa
Vapour pressure at 122 °F: 92.92 (12.39 kPa)
Evaporation rate at 68 °F: Non-applicable *

Volatility:

Boiling point at atmospheric pressure: 212 °F

Product description:

Density at 68 °F: 1018.5 kg/m³
Relative density at 68 °F: 1.018
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: Non-applicable *
Concentration: Non-applicable *
pH: Non-applicable *
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Flammability:
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: Non-applicable *
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 ºF: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
LD50 oral > 5000 mg/kg (rat)

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met
- Corrosivity/Irritability: Based on available data, the classification criteria are not met

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met
- Corrosivity/Irritability: Based on available data, the classification criteria are not met
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Based on available data, the classification criteria are not met
   - Contact with the eyes: Based on available data, the classification criteria are not met

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
   - Carcinogenicity: Based on available data, the classification criteria are not met
     IARC: Formaldehyde (1)
   - Mutagenicity: Based on available data, the classification criteria are not met
   - Reproductive toxicity: Based on available data, the classification criteria are not met

E- Sensitizing effects:
   - Respiratory: Based on available data, the classification criteria are not met
   - Cutaneous: Based on available data, the classification criteria are not met

F- Specific target organ toxicity (STOT) - single exposure:
   Based on available data, the classification criteria are not met

G- Specific target organ toxicity (STOT)-repeated exposure:
   - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met
   - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
   Based on available data, the classification criteria are not met

Other information:
Non-applicable

Specific toxicology information on the substances:
Not available

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral &gt;5000 mg/kg (Calculation method)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Dermal &gt;5000 mg/kg (Calculation method)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Inhalation &gt;20 mg/L (4 h) (Calculation method)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
   Not available

12.2 Persistence and degradability:
   Not available

12.3 Bioaccumulative potential:
   Not available

12.4 Mobility in soil:
   Not available

12.5 Results of PBT and vPvB assessment:
   Non-applicable

12.6 Other adverse effects:
   Not described
### SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261 - IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

### SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>14.1 UN number:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
</tbody>
</table>

**Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**

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<tr>
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<tbody>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
</tbody>
</table>

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):**

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<tbody>
<tr>
<td>Non-applicable</td>
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</table>

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

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</tr>
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<tbody>
<tr>
<td>14.1 UN number:</td>
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</tr>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
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</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
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<tr>
<td>14.5 Environmental hazard:</td>
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</table>

**Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**

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</thead>
<tbody>
<tr>
<td>Physico-Chemical properties:</td>
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</tbody>
</table>

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):**

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<tbody>
<tr>
<td>Non-applicable</td>
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</tbody>
</table>

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

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<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Physico-Chemical properties: see section 9
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA) : Non-applicable
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: Non-applicable
   New York RTK - Substance list: Non-applicable
   Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
   CANADA-Domestic Substances List (DSL): Non-applicable
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Non-applicable
   Rhode Island - Hazardous substances RTK: Non-applicable
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

   Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
   circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
   product.

   Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the
individual components which appear in section 3

29 CFR 1910.1200:
Non-applicable

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension
and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).
SECTION 16: OTHER INFORMATION (continued)

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1707 - Tire Jelly™

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products
Tire dressing for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Irrit. 2: Eye irritation, Category 2, H319

2.2 Label elements:

29 CFR 1910.1200:
Warning

Hazard statements:
Eye Irrit. 2: H319 - Causes serious eye irritation

Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313: If eye irritation persists: Get medical advice/attention

2.3 Other hazards which do not result in classification:

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 84133-50-6</td>
<td>Alcohols, C12-14-secondary, ethoxylated</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.
B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F
B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>0.75 ppm</td>
</tr>
<tr>
<td>CAS: 50-00-0</td>
<td>Ceiling Values - TWA PEL 2 ppm</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 68 °F: Liquid

*Not relevant due to the nature of the product, not providing information property of its hazards.
### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Viscous</td>
</tr>
<tr>
<td>Color</td>
<td>Green</td>
</tr>
<tr>
<td>Odor</td>
<td>Solvent</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Vapour pressure at 68 °F:</strong></td>
<td>2355 Pa</td>
</tr>
<tr>
<td><strong>Boiling point at atmospheric pressure:</strong></td>
<td>212 ºF</td>
</tr>
<tr>
<td><strong>Vapour pressure at 122 °F:</strong></td>
<td>92.94 (12.39 kPa)</td>
</tr>
<tr>
<td><strong>Evaporation rate at 68 °F:</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Product description:</strong></td>
<td></td>
</tr>
<tr>
<td>Density at 68 °F</td>
<td>1014.8 kg/m³</td>
</tr>
<tr>
<td>Relative density at 68 °F:</td>
<td>1.015</td>
</tr>
<tr>
<td>Dynamic viscosity at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Kinematic viscosity at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Kinematic viscosity at 104 °F:</td>
<td>&gt;20.5 cSt</td>
</tr>
<tr>
<td>Concentration</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>pH:</strong></td>
<td>8</td>
</tr>
<tr>
<td><strong>Vapour density at 68 °F:</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Partition coefficient n-octanol/water 68 °F:</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Solubility in water at 68 °F:</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Solubility properties:</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Decomposition temperature:</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Melting point/freezing point:</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive properties:</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Oxidising properties:</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Flammability:</strong></td>
<td>Non Flammable (&gt;199.4 ºF)</td>
</tr>
<tr>
<td><strong>Flash Point:</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Autoignition temperature:</strong></td>
<td>615 ºF</td>
</tr>
<tr>
<td><strong>Lower flammability limit:</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Upper flammability limit:</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Lower explosive limit:</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Upper explosive limit:</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Surface tension at 68 °F:</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Refraction index:</strong></td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

### SECTION 10: STABILITY AND REACTIVITY

#### 10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

#### 10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

#### 10.3 Possibility of hazardous reactions:
SECTION 10: STABILITY AND REACTIVITY (continued)

10.4 **Conditions to avoid:**

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 **Incompatible materials:**

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 **Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects:**

The experimental information related to the toxicological properties of the product itself is not available.

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- **Ingestion (acute effect):**

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- **Inhalation (acute effect):**

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- **Contact with the skin and the eyes (acute effect):**

- Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Produces eye damage after contact.

D- **CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):**

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: Formaldehyde (1); 2,2’,2”-nitrilotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- **Sensitizing effects:**

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- **Specific target organ toxicity (STOT) - single exposure:**

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
   - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other Information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethoxylated Alcohol</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
Not available

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:
Not available

12.4 Mobility in soil:
Not available

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

- CONTINUED ON NEXT PAGE -
### SECTION 14: TRANSPORT INFORMATION (continued)

With regard to 49 CFR on the Transport of Dangerous Goods:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Alcohols,C12-14-secondary, ethoxylated ; Ethoxylated Alcohol
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: Non-applicable
New York RTK - Substance list: Non-applicable
Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
CANADA-Domestic Substances List (DSL): Alcohols,C12-14-secondary, ethoxylated ; Ethoxylated Alcohol
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Non-applicable
Rhode Island - Hazardous substances RTK: Non-applicable
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H319: Causes serious eye irritation

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1720 - ProSheen™

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Tire dressing for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Asp. Tox. 1: Aspiration hazard, Category 1, H304

2.2 Label elements:
   29 CFR 1910.1200:
   Danger
   
   Hazard statements:
   Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
   Precautionary statements:
   P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor
   P331: Do NOT induce vomiting
   P405: Store locked up
   P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging
   waste respectively
   Substances that contribute to the classification
   Distillates (petroleum), hydrotreated light (> 0.01 kPa, 20°C); Distillates (petroleum), hydrotreated middle, <20.5 cSt@40°C

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:
   Chemical description: Aqueous mixture composed of chemical products for cleaning products
   Components:
   Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity
   and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of
   §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>CAS:</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 64742-47-8</td>
<td>Distillates (petroleum), hydrotreated light (&gt; 0.01 kPa, 20ºC) Asp. Tox. 1: H304 - Danger</td>
<td>64742-47-8</td>
<td>35 - &lt;65 %</td>
</tr>
<tr>
<td>CAS: 64742-46-7</td>
<td>Distillates (petroleum), hydrotreated middle, &lt;20.5 cSt@40ºC Asp. Tox. 1: H304 - Danger</td>
<td>64742-46-7</td>
<td>15 - &lt;35 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of modifications on the skin (stinging, redness, rashes, blisters,…), seek medical advice with this Safety data Sheet.

By eye contact:

This product does not contain substances classified as hazardous for eye contact. Rinse eyes thoroughly for at least 15 minutes with lukewarm water, ensuring that the person affected does not rub or close their eyes.

By ingestion/aspiration:

Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- CONTINUED ON NEXT PAGE -
SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B. General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace
There are no occupational exposure limits for the substances contained in the product

8.2 Appropriate engineering controls:
A. Individual protection measures, such as personal protective equipment

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional / industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 68 °F: Liquid

*Not relevant due to the nature of the product, not providing information property of its hazards.
### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Viscous</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Blue</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Fruity</td>
</tr>
<tr>
<td><strong>Odour threshold</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Boiling point at atmospheric pressure</strong></td>
<td>464 °F</td>
</tr>
<tr>
<td><strong>Vapour pressure at 68 °F</strong></td>
<td>2 Pa</td>
</tr>
<tr>
<td><strong>Vapour pressure at 122 °F</strong></td>
<td>0.24 (0.03 kPa)</td>
</tr>
<tr>
<td><strong>Evaporation rate at 68 °F</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Density at 68 °F</strong></td>
<td>894.6 kg/m³</td>
</tr>
<tr>
<td><strong>Relative density at 68 °F</strong></td>
<td>0.895</td>
</tr>
<tr>
<td><strong>Dynamic viscosity at 68 °F</strong></td>
<td>18.47 cP</td>
</tr>
<tr>
<td><strong>Kinematic viscosity at 68 °F</strong></td>
<td>20.65 cSt</td>
</tr>
<tr>
<td><strong>Kinematic viscosity at 104 °F</strong></td>
<td>&lt;20.5 cSt</td>
</tr>
<tr>
<td><strong>Concentration</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Vapour density at 68 °F</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Partition coefficient n-octanol/water 68 °F</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Solubility in water at 68 °F</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Solubility properties</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Decomposition temperature</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Melting point/freezing point</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive properties</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Oxidising properties</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Flammability</strong></td>
<td>Non Flammable (&gt;199.4 °F)</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Autoignition temperature</strong></td>
<td>377 °F</td>
</tr>
<tr>
<td><strong>Lower flammability limit</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Upper flammability limit</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Lower explosive limit</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Upper explosive limit</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Surface tension at 68 °F</strong></td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Refraction index</strong></td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

### SECTION 10: STABILITY AND REACTIVITY

#### 10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

#### 10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

#### 10.3 Possibility of hazardous reactions:
SECTION 10: STABILITY AND REACTIVITY (continued)

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalies or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for skin contact. For more information see section 3.
   - Contact with the eyes: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
   - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
     IARC: Non-applicable
   - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
   - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
   - Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
The consumption of a considerable dose can cause pulmonary damage.

Other information:
Non-applicable

Specific toxicology information on the substances:
Not available

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
Not available

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (petroleum), hydrotreated light (&gt; 0.01 kPa, 20°C)</td>
<td>BCF 130</td>
</tr>
<tr>
<td>CAS: 64742-47-8</td>
<td>Pow Log 3.3</td>
</tr>
<tr>
<td></td>
<td>Potential High</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:
Not available

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
### SECTION 13: DISPOSAL CONSIDERATIONS (continued)

**40 CFR Part 261 - IDENTIFICATION AND LISTING OF HAZARDOUS WASTE**

### SECTION 14: TRANSPORT INFORMATION

- **Transport of dangerous goods by land:**
  - With regard to 49 CFR on the Transport of Dangerous Goods:
    - 14.1 UN number: Non-applicable
    - 14.2 UN proper shipping name: Non-applicable
    - 14.3 Transport hazard class(es): Non-applicable
      - Labels: Non-applicable
    - 14.4 Packing group, if applicable: Non-applicable
    - 14.5 Environmental hazard: No
    - 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
      - Physico-Chemical properties: see section 9
    - 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

- **Transport of dangerous goods by sea:**
  - With regard to IMDG 38-16:
    - 14.1 UN number: Non-applicable
    - 14.2 UN proper shipping name: Non-applicable
    - 14.3 Transport hazard class(es): Non-applicable
      - Labels: Non-applicable
    - 14.4 Packing group, if applicable: Non-applicable
    - 14.5 Environmental hazard: No
    - 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
      - Physico-Chemical properties: see section 9
    - 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

- **Transport of dangerous goods by air:**
  - With regard to IATA/ICAO 2019:
    - 14.1 UN number: Non-applicable
    - 14.2 UN proper shipping name: Non-applicable
    - 14.3 Transport hazard class(es): Non-applicable
      - Labels: Non-applicable
    - 14.4 Packing group, if applicable: Non-applicable
    - 14.5 Environmental hazard: No
    - 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
      - Physico-Chemical properties: see section 9
    - 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

### SECTION 15: REGULATORY INFORMATION

- **15.1 Safety, health and environmental regulations specific for the product in question:**

- CONTINUED ON NEXT PAGE -
### SECTION 15: REGULATORY INFORMATION (continued)

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Applicability</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>The Toxic Substances Control Act (TSCA)</td>
<td>Distillates (petroleum), hydrotreated light (&gt; 0.01 kPa, 20ºC) ; Distillates (petroleum), hydrotreated middle, &lt;20.5 cSt @ 40ºC</td>
</tr>
<tr>
<td>Massachusetts RTK - Substance List</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>New Jersey Worker and Community Right-to-Know Act</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>New York RTK - Substance list</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Pennsylvania Worker and Community Right-to-Know Law</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>CANADA-Domestic Substances List (DSL): Distillates (petroleum), hydrotreated light (&gt; 0.01 kPa, 20ºC) ; Distillates (petroleum), hydrotreated middle, &lt;20.5 cSt @ 40ºC</td>
<td>CANADA-Non-Domestic Substances List (NDSL): Non-applicable</td>
</tr>
<tr>
<td>NTP (National Toxicology Program)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Minnesota - Hazardous substances ERTK</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Rhode Island - Hazardous substances RTK</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

**Other legislation:**

- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

### SECTION 16: OTHER INFORMATION

**Legislation related to safety data sheets:**

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

**Texts of the legislative phrases mentioned in section 2:**

- H304: May be fatal if swallowed and enters airways

**Texts of the legislative phrases mentioned in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**29 CFR 1910.1200:**

- Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

- Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

---

**Date of compilation:** 6/11/2019
**Version:** 1
Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1800 - Foam-It™ Body Shampoo

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
High foaming liquid for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Eye Irrit. 2: Eye irritation, Category 2, H319
Skin Irrit. 2: Skin irritation, Category 2, H315
STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

2.2 Label elements:
29 CFR 1910.1200:
Warning

Hazard statements:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Irrit. 2: H319 - Causes serious eye irritation
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Precautionary statements:
P264: Wash thoroughly after use
P271: Use only outdoors or in a well-ventilated area
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P403+P233: Store in a well-ventilated place. Keep container tightly closed
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Alkylbenzyl Sodium Sulfonate

2.3 Other hazards which do not result in classification:
Non-applicable

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alkylbenzyl Sodium Sulfonate (Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning)</td>
<td>15 - &lt;35 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

- CONTINUED ON NEXT PAGE -
### SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**
- As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

#### 6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

#### 6.3 Methods and materials for containment and cleaning up:
It is recommended:
- Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

#### 6.4 Reference to other sections:
See sections 8 and 13.

### SECTION 7: HANDLING AND STORAGE

#### 7.1 Precautions for safe handling:
- **A.** Precautions for safe manipulation
  - Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.
  - **B.** Technical recommendations for the prevention of fires and explosions
  - Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
  - **C.** Technical recommendations to prevent ergonomic and toxicological risks
  - Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
  - **D.** Technical recommendations to prevent environmental risks
  - It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

#### 7.2 Conditions for safe storage, including any incompatibilities:
- **A.** Technical measures for storage
  - Minimum Temp.: -4 °F
  - Maximum Temp.: 120 °F
  - **B.** General conditions for storage
  - Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

#### 7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

Date of compilation: 2/12/2019        Version: 1
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace
There are no occupational exposure limits for the substances contained in the product

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="hand.png" alt="Hand Protection" /></td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="face.png" alt="Face Protection" /></td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Semitransparent
- Color: Purple
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 212 °F
- Vapour pressure at 68 °F: 2350 Pa
- Vapour pressure at 122 °F: 92.87 (12.38 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1042.6 kg/m³
- Relative density at 68 °F: 1.043
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 11
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: Non-applicable *
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral 2000 mg/kg (Calculation method)</td>
<td>0 % Non-applicable</td>
</tr>
<tr>
<td>Dermal &gt;5000 mg/kg (Calculation method)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Inhalation &gt;20 mg/L (4 h) (Calculation method)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
Not available

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:
Not available

12.4 Mobility in soil:
Not available

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):

- CONTINUED ON NEXT PAGE -
### SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

---

### SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:

<table>
<thead>
<tr>
<th></th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>See section 9</td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):**

<table>
<thead>
<tr>
<th></th>
<th>Non-applicable</th>
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</thead>
<tbody>
<tr>
<td>14.7</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

---

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th></th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.2 UN proper shipping name:</td>
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<tr>
<td>14.5 Environmental hazard:</td>
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<tr>
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</tbody>
</table>

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):**

<table>
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<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>14.7</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

---

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th></th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>See section 9</td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):**

<table>
<thead>
<tr>
<th></th>
<th>Non-applicable</th>
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</thead>
<tbody>
<tr>
<td>14.7</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

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- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA): Alkylbenzyl Sodium Sulfonate
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: Non-applicable
   New York RTK - Substance list: Non-applicable
   Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
   CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Non-applicable
   Rhode Island - Hazardous substances RTK: Non-applicable
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H335: May cause respiratory irritation
H302: Harmful if swallowed
H319: Causes serious eye irritation

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
SECTION 16: OTHER INFORMATION (continued)

Acute Tox. 4: H302 - Harmful if swallowed
Eye Irrit. 2: H319 - Causes serious eye irritation
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1803 - Low pH Sensation®

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products
High foaming liquid for use in commercial car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315
STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

2.2 Label elements:

29 CFR 1910.1200:
Danger

Hazard statements:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Precautionary statements:
P271: Use only outdoors or in a well-ventilated area
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P403+P233: Store in a well-ventilated place. Keep container tightly closed
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

2.3 Other hazards which do not result in classification:

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 5329-14-6</td>
<td>Sulphamic acid</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>Sodium xylenesulphonate</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage

Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

- CONTINUED ON NEXT PAGE -
### SECTION 7: HANDLING AND STORAGE (continued)

**B. General conditions for storage**

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5.

#### 7.3 Specific use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
<tr>
<td>8-hour TWA PEL</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Ceiling Values - TWA PEL</td>
<td>240 mg/m³</td>
</tr>
</tbody>
</table>

#### 8.2 Appropriate engineering controls:

**A. Individual protection measures, such as personal protective equipment**

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

**B. Respiratory protection**

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

**C. Specific protection for the hands**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

**D. Ocular and facial protection**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

**E. Bodily protection**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

|           | Anti-slip work shoes                    | Replace before any evidence of deterioration.                          |

### Additional emergency measures
### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Orange
- Odor: Citric
- Odour threshold: Non-applicable *

**Volvatility:**
- Boiling point at atmospheric pressure: 217 ºF
- Vapour pressure at 68 ºF: 2324 Pa
- Vapour pressure at 122 ºF: 91.84 (12.24 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1060.2 kg/m³
- Relative density at 68 ºF: 1.06
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: <1 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

| Explosive: |  |
| Lower explosive limit: | Non-applicable * |
| Upper explosive limit: | Non-applicable * |

9.2 Other information:

| Surface tension at 68 °F: | Non-applicable * |
| Refraction index: | Non-applicable * |

*Not relevant due to the nature of the product, not providing information property of its hazards.

## SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

## SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
   - Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

C- Contact with the skin and the eyes (acute effect):

- CONTINUED ON NEXT PAGE -
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3. IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Sodium xylenesulphonate</td>
<td>LD50 oral 7200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Sulphamidic acid</td>
<td>LD50 oral 3160 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 5329-14-6</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphamidic acid</td>
<td>LC50 70.3 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 5329-14-6</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degratability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 4</td>
<td>Henry 1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
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</tr>
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<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
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</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
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</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

| 15.1 | Safety, health and environmental regulations specific for the product in question: |
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Sulphamidic acid; Sodium xylenesulphonate
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol; Sulphamidic acid
New York RTK - Substance list: 2-butoxyethanol; Sulphamidic acid
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Sulphamidic acid; Sodium xylenesulphonate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage
H335: May cause respiratory irritation
H302: Harmful if swallowed
H315: Causes skin irritation

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
## SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>CL50</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW</td>
<td>Octanol-water partition coefficient</td>
</tr>
<tr>
<td>Koc</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 1806 - SuperSlick®

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
High foaming liquid for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Irrit. 2: Eye irritation, Category 2, H319
Skin Irrit. 2: Skin irritation, Category 2, H315
STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

2.2 Label elements:
29 CFR 1910.1200:
Warning

Hazard statements:
Eye Irrit. 2: H319 - Causes serious eye irritation
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Precautionary statements:
P264: Wash thoroughly after use
P271: Use only outdoors or in a well-ventilated area
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P403+P233: Store in a well-ventilated place. Keep container tightly closed
P501: Dispose of contents and/or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Pentasodium triphosphate

Acute Toxicity Estimate (ATE mix):
0 % (oral), 24.55 % (dermal), 24.55 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>Sodium xylenesulphonate</td>
<td>Eye Irrit. 2: H319 - Warning</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By Inhalation:
Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.

Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: -4 °F

Maximum Temp.: 120 °F

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

#### 8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional / industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

### Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Viscous
- Color: Orange
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 218 ºF
- Vapour pressure at 68 ºF: 2323 Pa
- Vapour pressure at 122 ºF: 91.82 (12.24 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1045.3 kg/m³
- Relative density at 68 ºF: 1.045
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: >20.5 cSt
- Concentration: Non-applicable *
- pH: 7 - 9 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

#### 9.2 Other information:
- Surface tension at 68 ºF: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

### SECTION 10: STABILITY AND REACTIVITY

- CONTINUED ON NEXT PAGE -
SECTION 10: STABILITY AND REACTIVITY (continued)

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:
A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 oral</td>
<td>1414 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal</td>
<td>1060 mg/kg</td>
</tr>
<tr>
<td>Sodium xylenesulphonate</td>
<td>LC50 inhalation</td>
<td>11 mg/L (4 h)</td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium xylenesulphonate</td>
<td>LD50 oral</td>
<td>7200 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2126.8 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>14810.54 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>153.69 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BODS</td>
<td>0.71 g O2/g</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD</td>
<td>2.2 g O2/g</td>
</tr>
<tr>
<td></td>
<td>BODS/COD</td>
<td>0.32</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

- CONTINUED ON NEXT PAGE -
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
This product contains Phosphates.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>Item</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.2 UN proper shipping name</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Physico-Chemical properties</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>Item</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.2 UN proper shipping name</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Physico-Chemical properties</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
- The Toxic Substances Control Act (TSCA): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Sodium xylenesulphonate
- Massachusetts RTK - Substance List: Non-applicable
- New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
- New York RTK - Substance list: 2-butoxyethanol
- Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
- CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Sodium xylenesulphonate
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: 2-butoxyethanol
- Rhode Island - Hazardous substances RTK: 2-butoxyethanol
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)
## SECTION 16: OTHER INFORMATION

### Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

### Texts of the legislative phrases mentioned in section 2:

- H319: Causes serious eye irritation
- H315: Causes skin irritation
- H335: May cause respiratory irritation

### Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

#### 29 CFR 1910.1200:

- Acute Tox. 4: H302 - Harmful if swallowed
- Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flam. Liq. 4: H227 - Combustible liquid
- Skin Irrit. 2: H315 - Causes skin irritation
- STOT SE 3: H335 - May cause respiratory irritation

### Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

### Principal bibliographical sources:

- Occupational Safety & Health Administration (OSHA).

### Abbreviations and acronyms:

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

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Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
1.1 GHS Product identifier: 1810 - AquaFoam®

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
High foaming liquid for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to
do. Continue rinsing
P310: Immediately call a poison center/doctor
P332+P333: If skin irritation occurs: Get medical advice/attention

Substances that contribute to the classification
Sodium Alkylsulfonates; Anionic Surfactants

Acute Toxicity Estimate (ATE mix):
8.75 % (oral), 8.75 % (dermal), 19.83 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

3.1 Substances:
Non-applicable

3.2 Mixtures:
**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)**

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td><strong>Sodium Alkylsulfonates</strong>&lt;br&gt;Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td><strong>Anionic Surfactants</strong>&lt;br&gt;Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td><strong>2-butoxyethanol</strong>&lt;br&gt;Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

**SECTION 4: FIRST-AID MEASURES**

4.1 **Description of necessary measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By Inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 **Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

4.3 **Indication of immediate medical attention and special treatment needed, if necessary:**

Non-applicable

**SECTION 5: FIRE-FIGHTING MEASURES**

5.1 **Suitable (and unsuitable) extinguishing media:**

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 **Specific hazards arising from the chemical:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 **Special protective equipment and precautions for fire-fighters:**

Date of compilation: 2/12/2019            Version: 1
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL: 50 ppm, Ceiling Value - TWA PEL: 240 mg/m³</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory hand protection</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
<tr>
<td></td>
<td>Protective gloves against minor risks</td>
<td></td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory face protection</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
<tr>
<td></td>
<td>Panoramic glasses against splash/projections.</td>
<td></td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Emergency shower</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Liquid
Appearance: Transparent
Color: Orange
Odor: Not available
Odour threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: 215 °F
Vapour pressure at 68 °F: 2338 Pa
Vapour pressure at 122 °F: 92.39 (12.32 kPa)
Evaporation rate at 68 °F: Non-applicable *

Product description:
Density at 68 °F: 1036.4 kg/m³
Relative density at 68 °F: 1.036
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: Non-applicable *
Concentration: Non-applicable *
pH: 8 - 10 at 100 %
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidizing properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 °F)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 °F
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other Information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

- CONTINUED ON NEXT PAGE -
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: E-caprolactam (4); 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other Information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 oral 2290 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 6300 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>52370.37 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>39259.26 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>326.62 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td></td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LC50 4.2 mg/L (96 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 4.53 mg/L (48 h)</td>
<td>Skeletonema costatum</td>
<td>Algae</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>BODS Non-applicable</td>
<td>Concentration 20 mg/L</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD Non-applicable</td>
<td>% Biodegradable 96 %</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BODS 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>BCF 71</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Pow Log -1.3</td>
</tr>
<tr>
<td></td>
<td>Potential Moderate</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>Koc 1.6</td>
<td>Henry 6.7E-2 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Conclusion Very High</td>
<td>Dry soil Yes</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Sodium Alkylsulfonates; Anionic Surfactants; 2-butoxyethanol
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Sodium Alkylsulfonates; Anionic Surfactants; 2-butoxyethanol
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)
### SECTION 16: OTHER INFORMATION

<table>
<thead>
<tr>
<th>Legislation related to safety data sheets:</th>
</tr>
</thead>
<tbody>
<tr>
<td>This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets</td>
</tr>
</tbody>
</table>

#### Texts of the legislative phrases mentioned in section 2:
- H315: Causes skin irritation
- H318: Causes serious eye damage

#### Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

#### 29 CFR 1910.1200:
- Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
- Eye Dam. 1: H318 - Causes serious eye damage
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flam. Liq. 4: H227 - Combustible liquid
- Skin Irrit. 2: H315 - Causes skin irritation

#### Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

#### Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

#### Abbreviations and acronyms:
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

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Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
1. GHS Product identifier: 1900 - Dissolve®

2. Recommended use of the chemical and restrictions on use:
   - Relevant uses: Chemical cleaning products
   - Liquid alkaline detergent for use in commercial car washes.
   - Uses advised against: All uses not specified in this section or in section 7.3

3. Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   - Cleaning Systems, Inc.
   - 1997 American Blvd
   - 54115 De Pere - United States
   - Phone.: 9203372175 - Fax: 9203379410
   - chemcompliance@cleaningsystemsinc.com
   - http://cleaningsystemsinc.com

4. Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

1. Classification of the substance or mixture:
   - 29 CFR 1910.1200:
     - Eye Dam. 1: Serious eye damage, Category 1, H318
     - Skin Corr. 1A: Skin corrosion, Category 1A, H314

2. Label elements:
   - 29 CFR 1910.1200:
     - Danger
     - Hazard statements:
       - Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
     - Precautionary statements:
       - P260: Do not breathe dust/fume/gas/mist/vapours/spray
       - P264: Wash thoroughly after use
       - P280: Wear protective gloves/protective clothing/eye protection/face protection
       - P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
       - P303+P361+P353: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower
       - P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
       - P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
       - P310: Immediately call a poison center/doctor
     - Substances that contribute to the classification:
       - Surfactant Mixture; Sodium Metasilicate; Tetrasodium ethylenediaminetetraacetate; Sodium hydroxide
     - Acute Toxicity Estimate (ATE mix):
       - 24.4 % (oral), 26.53 % (dermal), 26.53 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

3. Other hazards which do not result in classification:
   - Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

1. Substances:
   - Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 6834-92-0</td>
<td>Sodium Metasilicate</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.
SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

   Additional provisions:
   As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
   Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
   Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
   Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
   Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
   It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F

B.- General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5
SECTION 7: HANDLING AND STORAGE (continued)

7.3 Specific end use(s):
   Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
   Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
   A. Individual protection measures, such as personal protective equipment
      As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.
   B. Respiratory protection
      The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.
   C. Specific protection for the hands
      As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application
      Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)
      D. Ocular and facial protection
      Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)
      E. Bodily protection
      Replace before any evidence of deterioration.
      F. Additional emergency measures
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 ºF: Liquid
Appearance: Transparent
Color: Brown
Odor: Mild
Odour threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: 217 ºF
Vapour pressure at 68 ºF: 2325 Pa
Vapour pressure at 122 ºF: 91.88 (12.25 kPa)
Evaporation rate at 68 ºF: Non-applicable *

Product description:
Density at 68 ºF: 1083.5 kg/m³
Relative density at 68 ºF: 1.084
Dynamic viscosity at 68 ºF: 1.73 cP
Kinematic viscosity at 68 ºF: 1.6 cSt
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: >13 at 100 %
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -
### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

**9.2 Other information:**
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

### SECTION 10: STABILITY AND REACTIVITY

10.1 **Reactivity:**
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 **Chemical stability:**
Chemically stable under the conditions of storage, handling and use.

10.3 **Possibility of hazardous reactions:**
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 **Conditions to avoid:**
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 **Incompatible materials:**

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 **Hazardous decomposition products:**
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

### SECTION 11: TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects:**
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

**A- Ingestion (acute effect):**
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

**B- Inhalation (acute effect):**
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

**C- Contact with the skin and the eyes (acute effect):**
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3); 2,2',2''-nitrilotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral: 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal: 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation: 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral: 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal: Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation: Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th></th>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>15795.85 mg/kg (Calculation method)</td>
<td>24.4 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>15576.7 mg/kg (Calculation method)</td>
<td>26.53 %</td>
</tr>
<tr>
<td>Inhalation</td>
<td>161.65 mg/L (4 h) (Calculation method)</td>
<td>26.53 %</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 6834-92-0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50 210 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
<td></td>
</tr>
<tr>
<td>EC50 216 mg/L (96 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
<td></td>
</tr>
<tr>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
<td></td>
</tr>
<tr>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
<td></td>
</tr>
<tr>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
<td></td>
</tr>
<tr>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
<td></td>
</tr>
<tr>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>% Biodegradable</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log</td>
</tr>
<tr>
<td></td>
<td>Potential</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log</td>
</tr>
<tr>
<td></td>
<td>Potential</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>9</td>
<td>1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>Moist soil</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>1046</td>
<td>0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>Moist soil</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
## SECTION 14: TRANSPORT INFORMATION (continued)

With regard to 49 CFR on the Transport of Dangerous Goods:

| 14.1 | UN number: | UN3266 |
| 14.2 | UN proper shipping name: | CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate) |
| 14.3 | Transport hazard class(es): | 8 |
| 14.4 | Packing group, if applicable: | II |
| 14.5 | Environmental hazard: | No |
| 14.6 | Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
| 14.7 | Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

### Transport of dangerous goods by sea:

With regard to IMDG 38-16:

| 14.1 | UN number: | UN3266 |
| 14.2 | UN proper shipping name: | CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate) |
| 14.3 | Transport hazard class(es): | 8 |
| 14.4 | Packing group, if applicable: | II |
| 14.5 | Environmental hazard: | No |
| 14.6 | Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
| 14.7 | Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

### Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

| 14.1 | UN number: | UN3266 |
| 14.2 | UN proper shipping name: | CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate) |
| 14.3 | Transport hazard class(es): | 8 |
| 14.4 | Packing group, if applicable: | II |
| 14.5 | Environmental hazard: | No |
| 14.6 | Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
| 14.7 | Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

## SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA) : Sodium Metasilicate ; 2-butoxyethanol ; Tetrasodium ethylenediaminetetraacetate
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Sodium Metasilicate ; 2-butoxyethanol ; Tetrasodium ethylenediaminetetraacetate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Met. Corr. 1: H290 - May be corrosive to metals
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:

- CONTINUED ON NEXT PAGE -
SECTION 16: OTHER INFORMATION (continued)

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
### SECTION 1: IDENTIFICATION

| 1.1 | **GHS Product identifier:** | 1905 - LiftOff®  
New and Improved Since September 2019 |
| 1.2 | **Recommended use of the chemical and restrictions on use:** | Relevant uses: Chemical cleaning products  
Liquid alkaline detergent for use in commercial car washes.  
Uses advised against: All uses not specified in this section or in section 7.3 |
| 1.3 | **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:** | Cleaning Systems, Inc.  
1997 American Blvd  
54115 De Pere - United States  
Phone.: 9203372175 - Fax: 9203379410  
chemcompliance@cleaningsystemsinc.com  
http://cleaningsystemsinc.com |
| 1.4 | **Emergency phone number:** | 1-800-424-9300 or 1-703-527-3887 |

### SECTION 2: HAZARD(S) IDENTIFICATION

| 2.1 | **Classification of the substance or mixture:**  
29 CFR 1910.1200:  
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.  
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302  
Eye Dam. 1: Serious eye damage, Category 1, H318  
Met. Corr. 1: Corrosive to metals, Category 1, H290  
Skin Corr. 1A: Skin corrosion, Category 1A, H314  
STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335 |
| 2.2 | **Label elements:**  
29 CFR 1910.1200:  
Danger |

#### Hazard statements:

- Acute Tox. 4: H302 - Harmful if swallowed  
- Met. Corr. 1: H290 - May be corrosive to metals  
- Skin Corr. 1A: H314 - Causes severe skin burns and eye damage  
- STOT SE 3: H335 - May cause respiratory irritation  

#### Precautionary statements:

- P234: Keep only in original container  
- P280: Wear protective gloves/protective clothing/eye protection/face protection  
- P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting  
- P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
- P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
- P403+P233: Store in a well-ventilated place. Keep container tightly closed  
- P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively  

**Substances that contribute to the classification**

- Surfactant Mixture; Ethanediol; Sodium Metasilicate; 2-aminoethanol  

**Acute Toxicity Estimate (ATE mix):**  
23.9 % (oral), 26.08 % (dermal), 39.08 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity
### SECTION 2: HAZARD(S) IDENTIFICATION (continued)

**Additional labeling:**
Keep out of the reach of children

**2.3 Other hazards which do not result in classification:**
Non-applicable

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substances:**
Non-applicable

**3.2 Mixtures:**

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>CAS</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
</table>
| Proprietary | Surfactant Mixture  
Acute Tox. 4: H302+H332; Eye Dam. 1: H318; Skin Corr. 1A: H314 - Danger | 10 - <15 %    |
| 107-21-1 | Ethanolol  
Acute Tox. 4: H302 - Warning                                                                  | 10 - <15 %    |
| 6834-92-0 | Sodium Metasilicate  
| 141-43-5 | 2-aminoethanol  
Acute Tox. 4: H302+H312+H332; Flam. Liq. 4: H227; Skin Corr. 1B: H314 - Danger          | 5 - <10 %     |
| 64-02-8  | Tetrasodium ethylenediaminetetraacetate  
Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger                                                  | <5 %          |

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

### SECTION 4: FIRST-AID MEASURES

**4.1 Description of necessary measures:**
Request medical assistance immediately, showing the SDS of this product.

**By Inhalation:**
Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

**By skin contact:**
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

**4.2 Most important symptoms/effects, acute and delayed:**

- CONTINUED ON NEXT PAGE -
SECTION 4: FIRST-AID MEASURES (continued)

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use full jet water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
   Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.
   B.- Technical recommendations for the prevention of fires and explosions
   Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
SECTION 7: HANDLING AND STORAGE (continued)

C. - Technical recommendations to prevent ergonomic and toxicological risks
   Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. - Technical recommendations to prevent environmental risks
   It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A. - Technical measures for storage
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F

B. - General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
   Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this
   product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
   Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Substance</th>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
<td></td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>8-hour TWA PEL</td>
<td>3 ppm</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>Ceiling Values - TWA PEL</td>
<td>6 mg/m³</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td>8-hour TWA PEL</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td>CAS: 7664-38-2</td>
<td>Ceiling Values - TWA PEL</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal
   Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by
   the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the
   information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing
   application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard
   assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance

B. - Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands
   Mandatory hand protection
   Protective gloves against minor risks
   Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)

D. - Ocular and facial protection

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mandatory face protection" /></td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Work clothing" /></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td><img src="image" alt="Anti-slip work shoes" /></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

**National volatile organic compound emission standards (40 CFR Part 59):**

- V.O.C. (Subpart C - Consumer): 20.97 % weight
- V.O.C. (Coatings) at 68 ºF: 234.21 kg/m³ (234.21 g/L)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**

- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Brown
- Odor: Pungent
- Odour threshold: Non-applicable *

**Volatile:**

- Boiling point at atmospheric pressure: 240 ºF
- Vapour pressure at 68 ºF: 2106 Pa
- Vapour pressure at 122 ºF: 11104.14 Pa (11.1 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**

- Density at 68 ºF: 1116.9 kg/m³
- Relative density at 68 ºF: 1.117
- Dynamic viscosity at 68 ºF: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kinematic viscosity at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Kinematic viscosity at 104 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Concentration:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>pH:</td>
<td>&gt;13</td>
</tr>
<tr>
<td>Vapour density at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Solubility in water at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Solubility properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Melting point/freezing point:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Oxidising properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Flammability:</td>
<td></td>
</tr>
<tr>
<td>Flash Point:</td>
<td>Non-Flammable (&gt;199.4 °F)</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature:</td>
<td>752 °F</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive:</td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

9.2 Other information:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface tension at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Contact with air</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Increase in temperature</td>
<td>Precaution</td>
</tr>
<tr>
<td>Sunlight</td>
<td>Precaution</td>
</tr>
<tr>
<td>Humidity</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Incompatibility</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acids</td>
<td>Avoid strong acids</td>
</tr>
<tr>
<td>Water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Oxidising materials</td>
<td>Precaution</td>
</tr>
<tr>
<td>Combustible materials</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Others</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.
SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available. Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
   - Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
   - Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
   - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
     - IARC: Diethanolamine (2B)
   - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
   - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
   - Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
   - Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

G- Specific target organ toxicity (STOT)-repeated exposure:
   - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
   - Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:
### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethanediol</strong></td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>LD50 dermal 9530 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td><strong>2-aminoethanol</strong></td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>LD50 dermal 1025 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td><strong>Tetrasodium ethylenediaminetetraacetate</strong></td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

**Acute Toxicity Estimate (ATE mix):**

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1764.84 mg/kg (Calculation method)</td>
</tr>
<tr>
<td></td>
<td>23.9 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>9567.18 mg/kg (Calculation method)</td>
</tr>
<tr>
<td></td>
<td>26.08 %</td>
</tr>
<tr>
<td>Inhalation</td>
<td>84.62 mg/L (4 h) (Calculation method)</td>
</tr>
<tr>
<td></td>
<td>39.08 %</td>
</tr>
</tbody>
</table>

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

#### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethanediol</strong></td>
<td>LC50 53000 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>EC50 51000 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 24000 mg/L (168 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
<tr>
<td><strong>Sodium Metasilicate</strong></td>
<td>LC50 210 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 6834-92-0</td>
<td>EC50 216 mg/L (96 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2-aminoethanol</strong></td>
<td>LC50 348 mg/L (96 h)</td>
<td>Cyprinus carpio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>EC50 65 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 22 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
<tr>
<td><strong>Tetrasodium ethylenediaminetetraacetate</strong></td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Concentration</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethanediol</strong></td>
<td>BODS 0.47 g O2/g</td>
<td>100 mg/L</td>
<td>90 %</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>COD 1.29 g O2/g</td>
<td>14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BODS/COD 0.36</td>
<td>% Biodegradable</td>
<td></td>
</tr>
<tr>
<td><strong>2-aminoethanol</strong></td>
<td>Non-applicable</td>
<td>20 mg/L</td>
<td></td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>Non-applicable</td>
<td>21 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-applicable</td>
<td>% Biodegradable</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ethanediol</strong></td>
<td>BCF 10</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Pow Log -1.36</td>
</tr>
<tr>
<td><strong>2-aminoethanol</strong></td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>Pow Log -1.31</td>
</tr>
<tr>
<td><strong>Tetrasodium ethylenediaminetetraacetate</strong></td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -13</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Koc</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol (CAS: 107-21-1)</td>
<td>0</td>
<td>Very High</td>
<td>1.32E-1 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dry soil</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moist soil</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Surface tension</td>
<td>4.98E-2 N/m (77 °F)</td>
</tr>
<tr>
<td>2-aminoethanol (CAS: 141-43-5)</td>
<td>0.27</td>
<td>Henry</td>
<td>3.7E-5 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dry soil</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moist soil</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Surface tension</td>
<td>5.02E-2 N/m (77 °F)</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetaacetate (CAS: 64-02-8)</td>
<td>1046</td>
<td>Henry</td>
<td>0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dry soil</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moist soil</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Surface tension</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN3266
14.2 UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises:
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN3266
14.2 UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

14.1 UN number: UN3266
14.2 UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Ethanediol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Ethanediol
   The Toxic Substances Control Act (TSCA): Ethanediol; Sodium Metasilicate; 2-aminoethanol; Tetrasodium ethylenediaminetetraacetate
   Massachusetts RTK - Substance List: Ethanediol
   New Jersey Worker and Community Right-to-Know Act: Ethanediol; 2-aminoethanol
   New York RTK - Substance list: Ethanediol; 2-aminoethanol
   Pennsylvanian Worker and Community Right-to-Know Law: Ethanediol; 2-aminoethanol
   CANADA-Domestic Substances List (DSL): Ethanediol; Sodium Metasilicate; 2-aminoethanol; Tetrasodium ethylenediaminetetraacetate
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Ethanediol; 2-aminoethanol
   Rhode Island - Hazardous substances RTK: Ethanediol; 2-aminoethanol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Ethanediol (5000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)
SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
- H318: Causes serious eye damage
- H290: May be corrosive to metals
- H335: May cause respiratory irritation
- H302: Harmful if swallowed
- H314: Causes severe skin burns and eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
- Acute Tox. 4: H302 - Harmful if swallowed
- Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
- Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled
- Eye Dam. 1: H318 - Causes serious eye damage
- Flm. Liq. 4: H227 - Combustible liquid
- Met. Corr. 1: H290 - May be corrosive to metals
- Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
- Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
- STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 2102 - Rust-Ban®

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Rust inhibitor for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302

2.2 Label elements:
   29 CFR 1910.1200:
   Warning
   !
   Hazard statements:
   Acute Tox. 4: H302 - Harmful if swallowed
   Precautionary statements:
   P264: Wash thoroughly after use
   P270: Do no eat, drink or smoke when using this product
   P301+P312: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
   P330: Rinse mouth
   P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively
   Substances that contribute to the classification
   Sodium nitrite
   Acute Toxicity Estimate (ATE mix):
   17.82 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:
   Chemical description: Aqueous mixture composed of chemical products for cleaning products
   Components:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 7632-00-0</td>
<td>Sodium nitrite</td>
<td>Acute Tox. 3: H301; Ox. Sol. 3: H272 - Danger</td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>Sodium xylene sulphonate</td>
<td>Eye Irrit. 2: H319 - Warning</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of modifications on the skin (stinging, redness, rashes, blisters,…), seek medical advice with this Safety data Sheet

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,…)

Additional provisions:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.:  -4 °F
Maximum Temp.:  120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

There are no occupational exposure limits for the substances contained in the product

8.2 **Appropriate engineering controls:**

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mandatory hand protection" /></td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional / industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mandatory face protection" /></td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Work clothing" /></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td><img src="image" alt="Anti-slip work shoes" /></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Emergency shower" /></td>
<td>ANSI Z358-1  ISO 3864-1:2002</td>
<td><img src="image" alt="Eyewash stations" /></td>
<td>DIN 12 899  ISO 3864-1:2002</td>
</tr>
</tbody>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 **Information on basic physical and chemical properties:**

*Not relevant due to the nature of the product, not providing information property of its hazards.*
**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)**

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Green
- Odor: Mild
- Odor threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 212 °F
- Vapour pressure at 68 °F: 2350 Pa
- Vapour pressure at 122 °F: 92.87 (12.38 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1114.4 kg/m³
- Relative density at 68 °F: 1.114
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 8 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: Non-applicable *
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

**9.2 Other information:**
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *
- *Not relevant due to the nature of the product, not providing information property of its hazards.

---

**SECTION 10: STABILITY AND REACTIVITY**

**10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.
SECTION 10: STABILITY AND REACTIVITY (continued)

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Avoid direct impact</td>
<td>Precaution</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Brilliant blue FCF (C.I.4290/C.I.Acid Blue 9) (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

CONTINUED ON NEXT PAGE
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

   Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

   - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

   Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium xylenesulphonate CAS: 1300-72-7</td>
<td>LD50 oral 7200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Sodium nitrite CAS: 7632-00-0</td>
<td>LD50 oral 85 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral 588.37 mg/kg (Calculation method)</td>
<td>17.82 %</td>
</tr>
<tr>
<td>Dermal &gt;5000 mg/kg (Calculation method)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Inhalation &gt;20 mg/L (4 h) (Calculation method)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
Not available

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:
Not available

12.4 Mobility in soil:
Not available

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

- CONTINUED ON NEXT PAGE -
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

<table>
<thead>
<tr>
<th></th>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td></td>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th></th>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td></td>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises

Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Sodium nitrite
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
- The Toxic Substances Control Act (TSCA): Sodium nitrite; Sodium xylene sulphonate
- Massachusetts RTK - Substance List: Sodium nitrite
- New Jersey Worker and Community Right-to-Know Act: Sodium nitrite
- New York RTK - Substance list: Sodium nitrite
- Pennsylvania Worker and Community Right-to-Know Law: Sodium nitrite
- CANADA-Domestic Substances List (DSL): Sodium nitrite; Sodium xylene sulphonate
- CANADA-Non-Domestic Substances List (NDSSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: Non-applicable
- Rhode Island - Hazardous substances RTK: Non-applicable
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium nitrite (100 pounds)

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:

H302: Harmful if swallowed

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:

Acute Tox. 3: H301 - Toxic if swallowed
Eye Irrit. 2: H319 - Causes serious eye irritation
Ox. Sol. 3: H272 - May intensify fire, oxidiser

Advice related to training:

- CONTINUED ON NEXT PAGE -
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**
Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 2300 - Pearl® Sealant & Drying Agent

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products
Drying agent for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Asp. Tox. 1: Aspiration hazard, Category 1, H304
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:

29 CFR 1910.1200:
Danger

Hazard statements:
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P331: Do NOT induce vomiting
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC; Quaternary Ammonium Compounds ; 3-butoxypropan-2-ol

Acute Toxicity Estimate (ATE mix):
27.14 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 64742-46-7</td>
<td>Distillates (petroleum), hydrotreated middle, &lt;20.5 cSt@40ºC</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 5131-66-8</td>
<td>3-butoxypropan-2-ol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 107-41-5</td>
<td>Hexylene Glycol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td>Propan-2-ol</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spill product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
### SECTION 7: HANDLING AND STORAGE (continued)

<table>
<thead>
<tr>
<th>B. General conditions for storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5</td>
</tr>
</tbody>
</table>

#### 7.3 Specific end use(s): 
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>400 ppm</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td>CAS: 56-81-5</td>
<td></td>
</tr>
</tbody>
</table>

#### 8.2 Appropriate engineering controls:

**A. Individual protection measures, such as personal protective equipment**

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

**B. Respiratory protection**

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

**C. Specific protection for the hands**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

**D. Ocular and facial protection**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

**E. Bodily protection**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Amber
- Odor: Mild
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 261 °F
- Vapour pressure at 68 °F: 2249 Pa
- Vapour pressure at 122 °F: 88.83 (11.84 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: Non-applicable *
- Relative density at 68 °F: Non-applicable *
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: <20.5 cSt
- Concentration: Non-applicable *
- pH: Non-applicable *
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>Non Flammable (&gt;199.4 °F)</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>500 °F</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive</td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>9.2 Other information:</td>
<td></td>
</tr>
<tr>
<td>Surface tension at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Suitable Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td>Precaution</td>
</tr>
<tr>
<td>Contact with air</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Increase in temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Sunlight</td>
<td>Precaution</td>
</tr>
<tr>
<td>Humidity</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Incompatible Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acids</td>
<td>Avoid strong acids</td>
</tr>
<tr>
<td>Water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Oxidising materials</td>
<td>Avoid direct impact</td>
</tr>
<tr>
<td>Combustible materials</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Others</td>
<td>Avoid alkalies or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Produces skin inflammation.
   - Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
   - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
     IARC: Propan-2-ol (3)
   - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
   - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
   - Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
   Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
   - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
   The consumption of a considerable dose can cause pulmonary damage.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>LD50 oral</td>
<td>5280 mg/kg</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td>LD50 dermal</td>
<td>12800 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>72.6 mg/L (4 h)</td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LD50 oral</td>
<td>500 mg/kg (ATEi)</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>LD50 oral</td>
<td>3771 mg/kg</td>
</tr>
<tr>
<td>CAS: 5131-66-8</td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2171.04 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LC50</td>
<td>Poecilia reticulata</td>
<td>Fish</td>
</tr>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>560 mg/L (96 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 5131-66-8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>1436 mg/L (48 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>LC50</td>
<td>Gambussia afinis</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 107-41-5</td>
<td>9910 mg/L (96 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>5410 mg/L (48 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>LC50</td>
<td>Pimephales promelas</td>
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<tr>
<td>CAS: 67-63-0</td>
<td>9640 mg/L (96 h)</td>
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<td>EC50</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>13299 mg/L (48 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>1000 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Bioavailability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>BOD5</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: 5131-66-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COD</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>% Biodegradable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>BOD5</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: 107-41-5</td>
<td>0.002 g O2/g</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COD</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>% Biodegradable</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>BOD5</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td>1.19 g O2/g</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COD</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>% Biodegradable</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>BCF</td>
</tr>
<tr>
<td>CAS: 5131-66-8</td>
<td>Pow Log</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>BCF</td>
</tr>
<tr>
<td>CAS: 107-41-5</td>
<td>Pow Log</td>
</tr>
<tr>
<td></td>
<td>0.14</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>BCF</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td>Pow Log</td>
</tr>
<tr>
<td></td>
<td>0.05</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>Koc</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 107-41-5</td>
<td>Non-applicable</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Non-applicable</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>Moist soil</td>
</tr>
<tr>
<td></td>
<td>1.577E-2 N/m (77 °F)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>Koc</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td>1.5</td>
<td>8.207E-1 Pa m³/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Very High</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>Moist soil</td>
</tr>
<tr>
<td></td>
<td>2.24E-2 N/m (77 °F)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
**SECTION 13: DISPOSAL CONSIDERATIONS (continued)**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

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**SECTION 14: TRANSPORT INFORMATION**

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:

| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group, if applicable: | Non-applicable |
| 14.5 Environmental hazard: | No |
| 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises | Non-applicable |
| Physico-Chemical properties: | see section 9 |
| 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group, if applicable: | Non-applicable |
| 14.5 Environmental hazard: | No |
| 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises | Non-applicable |
| Physico-Chemical properties: | see section 9 |
| 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

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- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to
   Annex II of MARPOL 73/78 and
   the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Propan-2-ol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA) : Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC ; Quaternary
   Ammonium Compounds ; 3-butoxypropan-2-ol ; Hexylene Glycol ; Propan-2-ol
   Massachusetts RTK - Substance List: Propan-2-ol
   New Jersey Worker and Community Right-to-Know Act: Hexylene Glycol ; Propan-2-ol
   New York RTK - Substance list: Hexylene Glycol ; Propan-2-ol
   Pennsylvania Worker and Community Right-to-Know Law: Hexylene Glycol ; Propan-2-ol
   CANADA-Domestic Substances List (DSL): Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC ; Quaternary
   Ammonium Compounds ; 3-butoxypropan-2-ol ; Hexylene Glycol ; Propan-2-ol
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Hexylene Glycol ; Propan-2-ol
   Rhode Island - Hazardous substances RTK: Hexylene Glycol ; Propan-2-ol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage
H304: May be fatal if swallowed and enters airways

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the
individual components which appear in section 3

29 CFR 1910.1200:
SECTION 16: OTHER INFORMATION (continued)

Acute Tox. 4: H302 - Harmful if swallowed
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 2: H225 - Highly flammable liquid and vapour
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H336 - May cause drowsiness or dizziness

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 2301 - Pearl® Sealant & Drying Agent Lemon

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Drying agent for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Asp. Tox. 1: Aspiration hazard, Category 1, H304
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P331: Do NOT induce vomiting
P501: Dispose of contents and/or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC; Quaternary Ammonium Compounds; 3-butoxypropan-2-ol

Acute Toxicity Estimate (ATE mix):
28.22 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 64742-46-7</td>
<td>Distillates (petroleum), hydrotreated middle, &lt;20.5 cSt@40ºC</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 5131-66-8</td>
<td>3-butoxypropan-2-ol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 107-41-5</td>
<td>Hexylene Glycol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td>Propan-2-ol</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable
SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
SECTION 7: HANDLING AND STORAGE (continued)

A. - Technical measures for storage
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F

B. - General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
   Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>400 ppm</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td>CAS: 56-81-5</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eyewash stations</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Amber
- Odor: Citric
- Odour threshold: Non-applicable *

**Vaporliy:**
- Boiling point at atmospheric pressure: 261 ºF
- Vapour pressure at 68 ºF: 2250 Pa
- Vapour pressure at 122 ºF: 88.86 (11.85 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: Non-applicable *
- Relative density at 68 ºF: Non-applicable *
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: <20.5 cSt
- Concentration: Non-applicable *
- pH: Non-applicable *
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/freezing point</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Flammability:</strong></td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>Non Flammable (&gt;199.4 ºF)</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>500 ºF</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>9.2 Other information:</strong></td>
<td></td>
</tr>
<tr>
<td>Surface tension at 68 ºF</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Category</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acids</td>
<td>Not applicable</td>
<td>Avoid direct impact</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Propan-2-ol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
The consumption of a considerable dose can cause pulmonary damage.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>LD50 oral 5280 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td>LD50 dermal 12800 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 72.6 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LD50 oral 500 mg/kg (ATEI)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>LD50 oral 3771 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 5131-66-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
</table>

- CONTINUED ON NEXT PAGE -
## SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Route</th>
<th>value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2210.56 mg/kg (Calculation method)</td>
<td>28.22 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

## SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>LC50</td>
<td>560 mg/L (96 h)</td>
<td>Poecilia reticulada</td>
</tr>
<tr>
<td>CAS: 5131-66-8</td>
<td>EC50</td>
<td>1436 mg/L (48 h)</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>LC50</td>
<td>9910 mg/L (96 h)</td>
<td>Gambusia affinis</td>
</tr>
<tr>
<td>CAS: 107-41-5</td>
<td>EC50</td>
<td>5410 mg/L (48 h)</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>LC50</td>
<td>9640 mg/L (96 h)</td>
<td>Pimephales promelas</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td>EC50</td>
<td>13299 mg/L (48 h)</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>1000 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
</tr>
</tbody>
</table>

### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Bio-degradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>BOD5</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>CAS: 5131-66-8</td>
<td>COD</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>BOD5</td>
<td>0.002 g O2/g</td>
</tr>
<tr>
<td>CAS: 107-41-5</td>
<td>COD</td>
<td>0.2 g O2/g</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>0.009</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>BOD5</td>
<td>1.19 g O2/g</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td>COD</td>
<td>2.23 g O2/g</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>0.53</td>
</tr>
</tbody>
</table>

### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>BCF</td>
</tr>
<tr>
<td>CAS: 5131-66-8</td>
<td>Pow Log</td>
</tr>
<tr>
<td></td>
<td>Potential</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>BCF</td>
</tr>
<tr>
<td>CAS: 107-41-5</td>
<td>Pow Log</td>
</tr>
<tr>
<td></td>
<td>Potential</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>BCF</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td>Pow Log</td>
</tr>
<tr>
<td></td>
<td>Potential</td>
</tr>
</tbody>
</table>

### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexylene Glycol</td>
<td>Koc</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>CAS: 107-41-5</td>
<td>Conclusion</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>1.577E-2 N/m (77 °F)</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>Koc</td>
<td>1.5</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td>Conclusion</td>
<td>Very High</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>2.24E-2 N/m (77 °F)</td>
</tr>
</tbody>
</table>

### 12.5 Results of PBT and vPvB assessment:

Non-applicable

### 12.6 Other adverse effects:

- CONTINUED ON NEXT PAGE -
SECTION 12: ECOLOGICAL INFORMATION (continued)

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in
direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-
dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Propan-2-ol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA): Distillates (petroleum), hydrotreated middle, <20.5 cSt@40°C ; Quaternary
   Ammonium Compounds ; 3-butoxypropan-2-ol ; 4-Nonylphenol, branched, ethoxylated ; Hexylene Glycol ; Propan-2-ol
   Massachusetts RTK - Substance List: Propan-2-ol
   New Jersey Worker and Community Right-to-Know Act: Hexylene Glycol ; Propan-2-ol
   New York RTK - Substance list: Hexylene Glycol ; Propan-2-ol
   Pennsylvania Worker and Community Right-to-Know Law: Hexylene Glycol ; Propan-2-ol
   CANADA-Domestic Substances List (DSL): Distillates (petroleum), hydrotreated middle, <20.5 cSt@40°C ; Quaternary
   Ammonium Compounds ; 3-butoxypropan-2-ol ; 4-Nonylphenol, branched, ethoxylated ; Hexylene Glycol ; Propan-2-ol
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Hexylene Glycol ; Propan-2-ol
   Rhode Island - Hazardous substances RTK: Hexylene Glycol ; Propan-2-ol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage
H304: May be fatal if swallowed and enters airways

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the
individual components which appear in section 3

29 CFR 1910.1200:
**SECTION 16: OTHER INFORMATION (continued)**

<table>
<thead>
<tr>
<th>Acute Tox. 4: H302 - Harmful if swallowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways</td>
</tr>
<tr>
<td>Eye Dam. 1: H318 - Causes serious eye damage</td>
</tr>
<tr>
<td>Eye Irrit. 2: H319 - Causes serious eye irritation</td>
</tr>
<tr>
<td>Flam. Liq. 2: H225 - Highly flammable liquid and vapour</td>
</tr>
<tr>
<td>Flam. Liq. 4: H227 - Combustible liquid</td>
</tr>
<tr>
<td>Skin Irrit. 2: H315 - Causes skin irritation</td>
</tr>
<tr>
<td>STOT SE 3: H336 - May cause drowsiness or dizziness</td>
</tr>
</tbody>
</table>

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 2303 - Dri-Max®
1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Drying agent for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3
1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com
1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Corr. 1B: Skin corrosion, Category 1B, H314
2.2 Label elements:
   29 CFR 1910.1200:
   Danger
   Hazard statements:
   Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
   Precautionary statements:
   P260: Do not breathe dust/fume/gas/mist/vapours/spray
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor
2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Skin Corr. 1B: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>Alkoxylated Fatty Amine, Quaternary Ammonium Chloride</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
### SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

**5.3 Special protective equipment and precautions for fire-fighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

**Additional provisions:**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures:**

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

**6.2 Environmental precautions:**

The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

**6.3 Methods and materials for containment and cleaning up:**

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

**6.4 Reference to other sections:**

See sections 8 and 13.

### SECTION 7: HANDLING AND STORAGE

**7.1 Precautions for safe handling:**

A.- Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

**7.2 Conditions for safe storage, including any incompatibilities:**

A.- Technical measures for storage

Minimum Temp.: -4 °F

Maximum Temp.: 120 °F

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

**7.3 Specific end use(s):**
SECTION 7: HANDLING AND STORAGE (continued)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>Chloromethane</td>
<td>100 ppm</td>
</tr>
<tr>
<td>CAS: 74-87-3</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
Physical state at 68 ºF: Liquid
Appearance: Transparent
Color: Colorless
Odor: Mild
Odour threshold: Non-applicable *

**Volatile:**
Boiling point at atmospheric pressure: 226 ºF
Vapour pressure at 68 ºF: 2271 Pa
Vapour pressure at 122 ºF: 89.79 (11.97 kPa)
Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
Density at 68 ºF: 997.7 kg/m³
Relative density at 68 ºF: 0.998
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: Non-applicable *
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

**Flammability:**
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
  - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
  - Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
  - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
  - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Chloromethane (3); 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LD50 oral 960 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Alkoxylated Fatty Amine, Quaternary Ammonium Chloride</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral 3131.13 mg/kg (Calculation method)</td>
<td>11.28 %</td>
</tr>
<tr>
<td>Dermal 9874.74 mg/kg (Calculation method)</td>
<td>29.2 %</td>
</tr>
<tr>
<td>Inhalation 102.47 mg/L (4 h) (Calculation method)</td>
<td>29.2 %</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION
The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 0.06 mg/L (72 h)</td>
<td>N/A</td>
<td>Algae</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>BOD5 Non-applicable</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD Non-applicable</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable</td>
</tr>
</tbody>
</table>

### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 4</td>
<td>Henry  1.62E-1 Pa m²/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.72E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

### 12.5 Results of PBT and vPvB assessment:

Non-applicable

### 12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>UN2735</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>III</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by sea:**

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>UN2735</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>III</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by air:**

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>UN2735</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S.</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>III</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA) : Quaternary Ammonium Compounds ; 2-butoxyethanol ; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Quaternary Ammonium Compounds ; 2-butoxyethanol ; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
### SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>CL50</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW</td>
<td>Octanol-water partition coefficient</td>
</tr>
<tr>
<td>Koc</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>

---

**Manufacturer Disclaimer:** The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 2305 - FBX-5™ Highly concentrated drying agent

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Drying agent for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Acute Tox. 4: Acute toxicity on contact with skin, Category 4, H312
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Acute Tox. 4: Acute inhalation toxicity, Category 4, H332
Asp. Tox. 1: Aspiration hazard, Category 1, H304
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1B: Skin corrosion, Category 1B, H314

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Acute Tox. 4: H312 - Harmful in contact with skin
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H332 - Harmful if inhaled
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P303+P361+P33: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC; Quaternary Ammonium Compounds; 2-butoxyethanol; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride

Date of compilation: 6/12/2019    Version: 1
SECTION 2: HAZARD(S) IDENTIFICATION (continued)

Acute Toxicity Estimate (ATE mix):
52.63 % (oral), 86.06 % (dermal), 86.06 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 64742-46-7</td>
<td>Distillates (petroleum), hydrotreated middle, &lt;20.5 cSt@40ºC Asp. Tox. 1: H304 - Danger</td>
<td>35 - &lt;65 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds Acute Tox. 4: H302; Skin Corr. 1B: H314 - Danger</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liqu. 2: H227; Skin Irrit. 2: H315 - Warning</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>Alkoxylated Fatty Amine, Quaternary Ammonium Chloride Acute Tox. 4: H302; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By inhalation:
Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
SECTION 4: FIRST-AID MEASURES (continued)

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)
Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.
B.- Technical recommendations for fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
SECTION 7: HANDLING AND STORAGE (continued)

C.- Technical recommendations to prevent ergonomic and toxicological risks
   Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
   It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F

B.- General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
   Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloromethane</td>
<td>8-hour TWA PEL 100 ppm</td>
</tr>
<tr>
<td>CAS: 74-87-3</td>
<td>Ceiling Values - TWA PEL 200 ppm</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td></td>
<td>240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

Date of compilation: 6/12/2019  
Version: 1
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Amber
- Odor: Mild
- Odour threshold: Non-applicable *

**Vaporility:**
- Boiling point at atmospheric pressure: 438 ºF
- Vapour pressure at 68 ºF: 19 Pa
- Vapour pressure at 122 ºF: 1.25 (0.17 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 907.7 kg/m³
- Relative density at 68 ºF: 0.908
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: <20.5 cSt
- Concentration: Non-applicable *
- pH: Non-applicable *
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decomposition temperature:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Melting point/freezing point:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Oxidising properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Flammability:</strong></td>
<td></td>
</tr>
<tr>
<td>Flash Point:</td>
<td>202 ºF</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature:</td>
<td>460 ºF</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>9.2 Other information:</strong></td>
<td></td>
</tr>
<tr>
<td>Surface tension at 68 ºF:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY**

10.1 **Reactivity:**
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 **Chemical stability:**
Chemically stable under the conditions of storage, handling and use.

10.3 **Possibility of hazardous reactions:**
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 **Conditions to avoid:**
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 **Incompatible materials:**

<table>
<thead>
<tr>
<th>Class</th>
<th>Acid</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid</td>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 **Hazardous decomposition products:**
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION**

11.1 **Information on toxicological effects:**
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

- CONTINUED ON NEXT PAGE -
A- Ingestion (acute effect):
   - Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
   - Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
   - Acute toxicity: Exposure in high concentration can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
   - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
   - Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
   - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
     - IARC: Chloromethane (3); 2-butoxyethanol (3)
   - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
   - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
   - Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
   Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
   - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
   The consumption of a considerable dose can cause pulmonary damage.

Other Information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds CAS: Proprietary</td>
<td>LD50 oral 960 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Alkoxylated Fatty Amine, Quaternary Ammonium Chloride CAS: Non-applicable</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

### Identification

<table>
<thead>
<tr>
<th>Substance</th>
<th>LD50 oral</th>
<th>LD50 dermal</th>
<th>LC50 inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethoxylated Alcohol</td>
<td>500 mg/kg (ATEi)</td>
<td>Non-applicable</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>875.2 mg/kg (Calculation method)</td>
<td>52.63 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>1060.53 mg/kg (Calculation method)</td>
<td>86.06 %</td>
</tr>
<tr>
<td>Inhalation</td>
<td>11.01 mg/L (4 h) (Calculation method)</td>
<td>86.06 %</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

#### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

**Quaternary Ammonium Compounds**
- **LC50**: Non-applicable
- **EC50**: Non-applicable
- **EC50**: 0.06 mg/L (72 h) (Fish)

**2-butoxyethanol CAS: 111-76-2**
- **LC50**: 1490 mg/L (96 h) (Fish)
- **EC50**: 1815 mg/L (48 h) (Crustacean)
- **EC50**: 911 mg/L (72 h) (Algae)

#### 12.2 Persistence and degradability:

**Quaternary Ammonium Compounds**
- **BOD5**: Non-applicable
- **COD**: Non-applicable
- **BOD5/COD**: Non-applicable

**2-butoxyethanol CAS: 111-76-2**
- **BOD5**: 0.71 g O2/g (Concentration: 100 mg/L)
- **COD**: 2.2 g O2/g (Period: 14 days)
- **BOD5/COD**: 0.32 % Biodegradable (96 %)

#### 12.3 Bioaccumulative potential:

**2-butoxyethanol CAS: 111-76-2**
- **BCF**: 3
- **Pow Log**: 0.83
- **Potential**: Low

#### 12.4 Mobility in soil:

**2-butoxyethanol CAS: 111-76-2**
- **Koc**: 4
- **Henry**: 1.62E-1 Pa m²/mol
- **Surface tension**: 2.72E-2 N/m (77 °F)

#### 12.5 Results of PBT and vPvB assessment:

Non-applicable

#### 12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN2735
14.2 UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Quaternary Ammonium Compounds)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
   Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN2735
14.2 UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Quaternary Ammonium Compounds)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
   Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN2735
14.2 UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Quaternary Ammonium Compounds)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA) : Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC ; Quaternary Ammonium Compounds ; 2-butoxyethanol ; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride ; Ethoxylated Alcohol
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
   New York RTK - Substance list: 2-butoxyethanol
   Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
   CANADA-Domestic Substances List (DSL): Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC ; Quaternary Ammonium Compounds ; 2-butoxyethanol ; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride ; Ethoxylated Alcohol
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: 2-butoxyethanol
   Rhode Island - Hazardous substances RTK: 2-butoxyethanol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable
   Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.
   Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H312: Harmful in contact with skin
H302: Harmful if swallowed
H332: Harmful if inhaled
H304: May be fatal if swallowed and enters airways

Texts of the legislative phrases mentioned in section 3:

- CONTINUED ON NEXT PAGE -
SECTION 16: OTHER INFORMATION (continued)

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 2406 - ProShield® Piña Colada

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products
Drying agent for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Asp. Tox. 1: Aspiration hazard, Category 1, H304
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:

29 CFR 1910.1200:
Danger

Hazard statements:
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P331: Do NOT induce vomiting
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC; Quaternary Ammonium Compounds ; 2-butoxyethanol; Ethoxylated Alcohol

Acute Toxicity Estimate (ATE mix):
20.55 % (oral), 32.47 % (dermal), 32.47 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 64742-46-7</td>
<td>Distillates (petroleum), hydrotreated middle, &lt;20.5 cSt@40ºC</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: 107-41-5</td>
<td>Hexylene Glycol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

   Additional provisions:
   As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
   Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
   Maintain order and cleanliness where dangerous products are used.
B.- Technical recommendations for the prevention of fires and explosions
   Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
   Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
   It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F
SECTION 7: HANDLING AND STORAGE (continued)

B. - General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl acetate</td>
<td>8-hour TWA PEL 400 ppm</td>
</tr>
<tr>
<td>CAS: 141-78-6</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Mandatory hand protection]</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional / industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Mandatory face protection]</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 68 °F: Liquid
Appearance: Opaque
Color: Greenish
Odor: Fruity
Odour threshold: Non-applicable *

Volatile:

Boiling point at atmospheric pressure: 244 °F
Vapour pressure at 68 °F: 2274 Pa
Vapour pressure at 122 °F: 89.88 (11.98 kPa)
Evaporation rate at 68 °F: Non-applicable *

Product description:

Density at 68 °F: Non-applicable *
Relative density at 68 °F: Non-applicable *
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: <20.5 cSt
Concentration: Non-applicable *
pH: Non-applicable *
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Flammability:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point:</td>
<td>Non Flammable (&gt;199.4 °F)</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature:</td>
<td>460 °F</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Explosive:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
- No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
- Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
- Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
- See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
- The experimental information related to the toxicological properties of the product itself is not available
- Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
- In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:
  - A- Ingestion (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Benzyl acetate (3); Coumarin (3); 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
The consumption of a considerable dose can cause pulmonary damage.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

**Acute Toxicity Estimate (ATE mix):**

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>3458.74 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>44740.28 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>464.29 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexylene Glycol</td>
<td>LC50 9910 mg/L (96 h)</td>
<td>Gambussia afinis</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 107-41-5</td>
<td>EC50 5410 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexylene Glycol</td>
<td>BODS 0.002 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 107-41-5</td>
<td>COD 0.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.009</td>
<td>% Biodegradable 76.4 %</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BODS 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexylene Glycol</td>
<td>BCF Pow Log 0.14</td>
</tr>
<tr>
<td>CAS: 107-41-5</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BCF Pow Log 0.83</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hexylene Glycol</td>
<td>Koc Non-applicable</td>
<td>Henry Non-applicable</td>
</tr>
<tr>
<td>CAS: 107-41-5</td>
<td>Conclusion Non-applicable</td>
<td>Dry soil Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Surface tension 1.577E-2 N/m (77 ºF)</td>
<td>Moist soil Non-applicable</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 4</td>
<td>Henry 1.62E-1 Pa·m²/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE
**SECTION 14: TRANSPORT INFORMATION**

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**SECTION 15: REGULATORY INFORMATION**

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC; Quaternary Ammonium Compounds; Hexylene Glycol; 2-butoxyethanol; Ethoxylated Alcohol
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: Hexylene Glycol; 2-butoxyethanol
New York RTK - Substance list: Hexylene Glycol; 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: Hexylene Glycol; 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC; Quaternary Ammonium Compounds; Hexylene Glycol; 2-butoxyethanol; Ethoxylated Alcohol
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Hexylene Glycol; 2-butoxyethanol
Rhode Island - Hazardous substances RTK: Hexylene Glycol; 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Relevant instructions for use:
Since high dilution ratios are difficult to determine and adjust accurately, set up ProShield® to draw about ¾ ounce per vehicle in low volume applications. In high volume systems, start at 1 ounce per vehicle. Adjust concentration to achieve the desired beading action and vehicle shine.

Dilution Ratio Ounces per Car
High Pressure 1:1000 to 1:1500 ¾ to 1¼ oz.
Low Pressure 1:400 to 1:500 ½ to ¾ oz

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage
H304: May be fatal if swallowed and enters airways

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
SECTION 16: OTHER INFORMATION (continued)

Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product Identifier: 2461 - LustraShield® Clear

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1B: Skin corrosion, Category 1B, H314

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor

Substances that contribute to the classification
Quaternary Ammonium Compounds; Quaternary Ammonium Compounds

Acute Toxicity Estimate (ATE mix):
9.65 % (oral), 20.13 % (dermal), 20.13 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td>Propan-2-ol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 **Description of necessary measures:**

Request medical assistance immediately, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 **Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

4.3 **Indication of immediate medical attention and special treatment needed, if necessary:**

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 **Suitable (and unsuitable) extinguishing media:**

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. - Technical recommendations for the prevention of fires and explosions
Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for conditions and materials that should be avoided.

C. - Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. - Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)
SECTION 7: HANDLING AND STORAGE (continued)

7.2 Conditions for safe storage, including any incompatibilities:
   A. - Technical measures for storage
      Minimum Temp.: -4 ºF
      Maximum Temp.: 120 ºF
   B. - General conditions for storage
      Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
   Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
   Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>8-hour TWA PEL 400 ppm</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td>Ceiling Values - TWA PEL 980 mg/m³</td>
</tr>
<tr>
<td>Glycerol</td>
<td>8-hour TWA PEL 5 mg/m³</td>
</tr>
<tr>
<td>CAS: 56-81-5</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
   A. - Individual protection measures, such as personal protective equipment
      As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.
   B. - Respiratory protection
      The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.
   C. - Specific protection for the hands
      Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)
      As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application
   D. - Ocular and facial protection
      Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)
   E. - Bodily protection

Date of compilation: 6/12/2019              Version: 1
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>ISO 3864-1:2002</td>
<td></td>
</tr>
<tr>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
<td>ISO 3864-1:2002</td>
<td></td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Liquid
Appearance: Transparent
Color: Yellowish
Odor: Not available
Odour threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: 216 °F
Vapour pressure at 68 °F: 2356 Pa
Vapour pressure at 122 °F: 93 (12.4 kPa)
Evaporation rate at 68 °F: Non-applicable *

Product description:
Density at 68 °F: 994.7 kg/m³
Relative density at 68 °F: 0.995
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: Non-applicable *
Concentration: Non-applicable *
pH: Non-applicable *
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/freezing point</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Oxidising properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Flammability:</strong></td>
<td></td>
</tr>
<tr>
<td>Flash Point:</td>
<td>Non Flammable (&gt;199.4 ºF)</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature:</td>
<td>460 ºF</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

9.2 Other information:
- Surface tension at 68 ºF: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Material</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:
- **A- Ingestion (acute effect):**
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  iARC: Propan-2-ol (3); 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>LD50 oral 5280 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td>LD50 dermal 12800 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 72.6 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LD50 oral 960 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds CAS: Proprietary</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>4-Nonylphenol, branched, ethoxylated CAS: 127087-87-0</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

#### Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th></th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
</tr>
<tr>
<td>Inhalation</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

#### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds CAS: Proprietary</td>
<td>LC50 Non-applicable</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 0.06 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>Propan-2-ol CAS: 67-63-0</td>
<td>LC50 9640 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 13299 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 1000 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
<tr>
<td>4-Nonylphenol, branched, ethoxylated CAS: 127087-87-0</td>
<td>LC50 84.7 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 23 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 19.5 mg/L (72 h)</td>
<td>Desmodesmus subspicatus</td>
<td>Algae</td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds CAS: Proprietary</td>
<td>BODS Non-applicable</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD Non-applicable</td>
<td>% Biodegradable 82 %</td>
</tr>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>BODS 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
<tr>
<td>Propan-2-ol CAS: 67-63-0</td>
<td>BODS 1.19 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD 2.23 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD 0.63</td>
<td>% Biodegradable 86 %</td>
</tr>
<tr>
<td>4-Nonylphenol, branched, ethoxylated CAS: 127087-87-0</td>
<td>BODS Non-applicable</td>
<td>Concentration Non-applicable</td>
</tr>
<tr>
<td></td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD Non-applicable</td>
<td>% Biodegradable 81 %</td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>BCF 3</td>
</tr>
<tr>
<td></td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td>Propan-2-ol CAS: 67-63-0</td>
<td>BCF 3</td>
</tr>
<tr>
<td></td>
<td>Pow Log 0.05</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td></td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td></td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil Yes</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>Koc 1.5</td>
<td>Henry 8.207E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 67-63-0</td>
<td>Conclusion Very High</td>
<td>Dry soil Yes</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.24E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>Koc 427</td>
<td>Henry Non-applicable</td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>Conclusion Low</td>
<td>Dry soil Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil Non-applicable</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol ; Propan-2-ol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Quaternary Ammonium Compounds ; 2-butoxyethanol ; Propan-2-ol ; Quaternary Ammonium Compounds
Massachusetts RTK - Substance List: Propan-2-ol
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol ; Propan-2-ol
New York RTK - Substance list: 2-butoxyethanol ; Propan-2-ol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol ; Propan-2-ol
CANADA-Domestic Substances List (DSL): Quaternary Ammonium Compounds ; 2-butoxyethanol ; Propan-2-ol ; Quaternary Ammonium Compounds
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol ; Propan-2-ol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol ; Propan-2-ol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
SECTION 15: REGULATORY INFORMATION (continued)

The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 2: H225 - Highly flammable liquid and vapour
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H336 - May cause drowsiness or dizziness

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 **GHS Product identifier:** 2502 - Lustra™ Foaming Conditioner Blue

1.2 **Recommended use of the chemical and restrictions on use:**
   Relevant uses: Chemical cleaning products
   High foaming liquid detergent for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 **Classification of the substance or mixture:**
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Irrit. 2: Eye irritation, Category 2, H319
   Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 **Label elements:**
   29 CFR 1910.1200:
   Warning

   !
   **Hazard statements:**
   Eye Irrit. 2: H319 - Causes serious eye irritation
   Skin Irrit. 2: H315 - Causes skin irritation

   **Precautionary statements:**
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P302+P352: IF ON SKIN: Wash with plenty of soap and water
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P332+P313: If skin irritation occurs: Get medical advice/attention
   P337+P313: If eye irritation persists: Get medical advice/attention

   **Substances that contribute to the classification**
   Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate

   **Acute Toxicity Estimate (ATE mix):**
   0 % (oral), 11.18 % (dermal), 11.18 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 **Other hazards which do not result in classification:**
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 **Substances:**
   Non-applicable

3.2 **Mixtures:**
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulfonate Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By Inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures:**
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 **Environmental precautions:**
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 **Methods and materials for containment and cleaning up:**
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 **Reference to other sections:**
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 **Precautions for safe handling:**

   A.- **Precautions for safe manipulation**
   Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

   B.- **Technical recommendations for the prevention of fires and explosions**
   Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

   C.- **Technical recommendations to prevent ergonomic and toxicological risks**
   Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

   D.- **Technical recommendations to prevent environmental risks**
   It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 **Conditions for safe storage, including any incompatibilities:**

   A.- **Technical measures for storage**
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F

   B.- **General conditions for storage**
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 **Specific end use(s):**
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td></td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA</td>
</tr>
<tr>
<td></td>
<td>240 mg/m³</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td></td>
<td>2 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections. Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>ISO 3864-1:2002</td>
<td>Eyewash stations</td>
</tr>
</tbody>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 **Information on basic physical and chemical properties:**

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Blue
- Odor: Solvent
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 216 ºF
- Vapour pressure at 68 ºF: 2331 Pa
- Vapour pressure at 122 ºF: 92.14 (12.28 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1038.2 kg/m³
- Relative density at 68 ºF: 1.038
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: 8 - 10 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 **Other information:**

- Surface tension at 68 ºF: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Precaution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Contact with air</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Increase in temperature</td>
<td>Precaution</td>
</tr>
<tr>
<td>Sunlight</td>
<td>Precaution</td>
</tr>
<tr>
<td>Humidity</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Class</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Avoid</td>
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<td>strong</td>
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<tr>
<td></td>
<td>acids</td>
<td></td>
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<tr>
<td></td>
<td>not</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>applicable</td>
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</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3); Brilliant blue FCF (C.I.4290/C.I.Acid Blue 9) (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity (oral)</th>
<th>Acute toxicity (dermal)</th>
<th>Acute toxicity (inhalation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>LD50 dermal 1050 mg/kg</td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
</tr>
<tr>
<td>Alkylbenzyl Sodium Sulfonate CAS: Proprietary</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td>LD50 dermal Non-applicable</td>
<td>LC50 inhalation Non-applicable</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate CAS: 64-02-8</td>
<td>LD50 oral 1700 mg/kg</td>
<td>LD50 dermal Non-applicable</td>
<td>LC50 inhalation Non-applicable</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>LD50 oral (mg/kg)</th>
<th>LD50 dermal (mg/kg)</th>
<th>LC50 inhalation (mg/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>4508.07 mg/kg</td>
<td>0 %</td>
<td>0 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>20922.04 mg/kg</td>
<td>11.18 %</td>
<td>11.18 %</td>
</tr>
<tr>
<td>Inhalation</td>
<td>217.12 mg/L (4 h)</td>
<td>11.18 %</td>
<td>11.18 %</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity (mg/L)</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LC50 1490 (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>EC50 1815 (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
<td></td>
</tr>
<tr>
<td>EC50 911 (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
<td></td>
</tr>
</tbody>
</table>

CONTINUED ON NEXT PAGE
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96%</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -13</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
**SECTION 15: REGULATORY INFORMATION (continued)**

<table>
<thead>
<tr>
<th>Legislation related to safety data sheets:</th>
</tr>
</thead>
<tbody>
<tr>
<td>This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets</td>
</tr>
</tbody>
</table>

**Texts of the legislative phrases mentioned in section 2:**

- H315: Causes skin irritation
- H319: Causes serious eye irritation

**Texts of the legislative phrases mentioned in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

<table>
<thead>
<tr>
<th>29 CFR 1910.1200:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4: H302 - Harmful if swallowed</td>
</tr>
<tr>
<td>Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or inhaled</td>
</tr>
<tr>
<td>Eye Dam. 1: H318 - Causes serious eye damage</td>
</tr>
<tr>
<td>Eye Irrit. 2: H319 - Causes serious eye irritation</td>
</tr>
<tr>
<td>Flam. Liq. 4: H227 - Combustible liquid</td>
</tr>
<tr>
<td>Skin Irrit. 2: H315 - Causes skin irritation</td>
</tr>
<tr>
<td>STOT SE 3: H335 - May cause respiratory irritation</td>
</tr>
</tbody>
</table>

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

- Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**

- 2-butoxyethanol
- Alkylbenzyl Sodium Sulfonate
- Tetrasodium ethylenediaminetetraacetate
- Non-applicable
| IMDG: International maritime dangerous goods code |
| IATA: International Air Transport Association |
| ICAO: International Civil Aviation Organisation |
| COD: Chemical Oxygen Demand |
| BOD5: 5-day biochemical oxygen demand |
| BCF: Bioconcentration factor |
| LD50: Lethal Dose 50 |
| CL50: Lethal Concentration 50 |
| EC50: Effective concentration 50 |
| Log-POW: Octanol-water partition coefficient |
| Koc: Partition coefficient of organic carbon |

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, it is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 2504 - Lustra™ Foaming Conditioner Yellow

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
High foaming liquid detergent for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Irrit. 2: Eye irritation, Category 2, H319
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
29 CFR 1910.1200:
Warning

Hazard statements:
Eye Irrit. 2: H319 - Causes serious eye irritation
Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P332+P313: If skin irritation occurs: Get medical advice/attention
P337+P313: If eye irritation persists: Get medical advice/attention

Substances that contribute to the classification
Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate

Acute Toxicity Estimate (ATE mix):
1.05 % (oral), 13.28 % (dermal), 13.28 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By Inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 ºF
Maximum Temp.: 120 ºF

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³ Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties:**

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Yellow
- Odor: Solvent
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 216 °F
- Vapour pressure at 68 °F: 2331 Pa
- Vapour pressure at 122 °F: 92.13 (12.28 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1042.7 kg/m³
- Relative density at 68 °F: 1.043
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 8 - 10 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

**9.2 Other information:**
- Surface tension at 68 °F: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
<td>*Not relevant due to the nature of the product, not providing information property of its hazards.</td>
</tr>
</tbody>
</table>

SECTION 10: STABILITY AND REACTIVITY

10.1 **Reactivity:**
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 **Chemical stability:**
Chemically stable under the conditions of storage, handling and use.

10.3 **Possibility of hazardous reactions:**
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 **Conditions to avoid:**
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition to Avoid</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 **Incompatible materials:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 **Hazardous decomposition products:**
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects:**
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- **Ingestion (acute effect):**
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- **Inhalation (acute effect):**
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- **Contact with the skin and the eyes (acute effect):**
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- **CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):**
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral</td>
<td>1414 mg/kg</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal</td>
<td>1060 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>11 mg/L (4 h)</td>
</tr>
<tr>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>LD50 oral</td>
<td>500 mg/kg</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral</td>
<td>1700 mg/kg</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>4508.07 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>20427.38 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>211.98 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50</td>
<td>1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50</td>
<td>1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
</tr>
</tbody>
</table>

- CONTINUED ON NEXT PAGE -
### SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>EC50  Non-applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td>Potential Low</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -13</td>
</tr>
<tr>
<td>Potential Low</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.72E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

#### 12.5 Results of PBT and vPvB assessment:

Non-applicable

#### 12.6 Other adverse effects:

Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

### SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number: Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number: Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number: Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA) : Alkylbenzyl Sodium Sulfonate ; 2-butoxyethanol ; Tetrasodium ethylenediaminetetraacetate
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate ; 2-butoxyethanol ; Tetrasodium ethylenediaminetetraacetate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H319: Causes serious eye irritation

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
### SECTION 16: OTHER INFORMATION (continued)

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate, thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 2514 - Lustra™ Foaming Conditioner Red

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   High foaming liquid detergent for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Irrit. 2: Eye irritation, Category 2, H319
   Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
   29 CFR 1910.1200:
   Warning

   Hazard statements:
   Eye Irrit. 2: H319 - Causes serious eye irritation
   Skin Irrit. 2: H315 - Causes skin irritation

   Precautionary statements:
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P302+P352: IF ON SKIN: Wash with plenty of soap and water
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P332+P313: If skin irritation occurs: Get medical advice/attention
   P337+P313: If eye irritation persists: Get medical advice/attention

   Substances that contribute to the classification
   Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate

   Acute Toxicity Estimate (ATE mix):
   1.16 % (oral), 12.34 % (dermal), 12.34 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 **Description of necessary measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 **Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

4.3 **Indication of immediate medical attention and special treatment needed, if necessary:**

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 **Suitable (and unsuitable) extinguishing media:**

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 **Specific hazards arising from the chemical:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 **Special protective equipment and precautions for fire-fighters:**

Date of compilation: 6/12/2019
Version: 1
Page 2/11
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B. General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA</td>
</tr>
</tbody>
</table>

#### 8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Mandatory hand protection]</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Mandatory face protection]</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Liquid
Appearance: Transparent
Color: Yellow
Odor: Solvent
Odour threshold: Non-applicable *

Vapour pressure at 68 °F: 2331 Pa
Vapour pressure at 122 °F: 92.13 (12.28 kPa)
Evaporation rate at 68 °F: Non-applicable *

Product description:
Density at 68 °F: 1039.6 kg/m³
Relative density at 68 °F: 1.04
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: Non-applicable *
Concentration: Non-applicable *
pH: 8 - 10 at 100 %
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 °F)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 °F
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

CONTINUED ON NEXT PAGE
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3)

- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Alkylbenzyl Sodium Sulfonate CAS: Proprietary</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate CAS: 64-02-8</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>4508.07 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>20649.98 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>214.29 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
<td></td>
</tr>
<tr>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
<td></td>
</tr>
</tbody>
</table>

- CONTINUED ON NEXT PAGE -
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>EC50</td>
<td>Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>BOD5</td>
<td>Concentration</td>
</tr>
<tr>
<td></td>
<td>0.71 g O2/g</td>
<td>100 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>2.2 g O2/g</td>
<td>14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>% Biodegradable</td>
</tr>
<tr>
<td></td>
<td>0.32</td>
<td>96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>BCF</td>
</tr>
<tr>
<td></td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -13</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:
## SECTION 14: TRANSPORT INFORMATION (continued)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>see section 9</td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### Transport of dangerous goods by sea:

**With regard to IMDG 38-16:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>see section 9</td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### Transport of dangerous goods by air:

**With regard to IATA/ICAO 2019:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>see section 9</td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

## SECTION 15: REGULATORY INFORMATION

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>15.1 Safety, health and environmental regulations specific for the product in question:</td>
</tr>
</tbody>
</table>
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable
Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.
Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets
Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H319: Causes serious eye irritation
Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3
29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation
Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.
Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).
Abbreviations and acronyms:

- CONTINUED ON NEXT PAGE -
SECTION 16: OTHER INFORMATION (continued)

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 2550 - Lustra™ Low pH Blue Polish - Raspberry

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products
High foaming liquid detergent for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:

29 CFR 1910.1200:
Danger

Hazard statements:
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P332+P313: If skin irritation occurs: Get medical advice/attention

Substances that contribute to the classification
Cocamidopropyl Betaine; Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

Acute Toxicity Estimate (ATE mix):
7.24 % (oral), 7.24 % (dermal), 8.44 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Cocamidopropyl Betaine&lt;br&gt;Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol&lt;br&gt;Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 68424-85-1</td>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides&lt;br&gt;Acute Tox. 4: H302+H312; Skin Corr. 1B: H314 - Danger</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
</tr>
<tr>
<td>CAS: 56-81-5</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td>Ethanol</td>
<td></td>
</tr>
<tr>
<td>CAS: 64-17-5</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td></td>
</tr>
<tr>
<td>CAS: 7664-38-2</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>50 ppm</td>
</tr>
</tbody>
</table>

#### 8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

Pictogram | PPE | Remarks
---|---|---
![Mandatory hand protection](image)
Protective gloves against minor risks
Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

Pictogram | PPE | Remarks
---|---|---
![Mandatory face protection](image)
Panoramic glasses against splash/projections
Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)

E.- Bodily protection

Pictogram | PPE | Remarks
---|---|---
Work clothing
Replace before any evidence of deterioration.

Anti-slip work shoes
Replace before any evidence of deterioration.

F.- Additional emergency measures

- CONTINUED ON NEXT PAGE -
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Liquid
Appearance: Transparent
Color: Blue
Odor: Fruity
Odour threshold: Non-applicable *

Volatility:
Boiling point at atmospheric pressure: 213 °F
Vapour pressure at 68 °F: 2348 Pa
Vapour pressure at 122 °F: 92.77 (12.37 kPa)
Evaporation rate at 68 °F: Non-applicable *

Product description:
Density at 68 °F: 1034.1 kg/m³
Relative density at 68 °F: 1.034
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: Non-applicable *
Concentration: Non-applicable *
pH: >2.6 at 100 %
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 °F)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 °F
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  1ARC: 2-butoxyethanol (3); Brilliant blue FCF (C.I.4290/C.I.Acid Blue 9) (3)
  - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
  - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicity information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</td>
<td>LD50 oral 344 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 68424-85-1</td>
<td>LD50 dermal 1100 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1080 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>22870.79 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>44049.87 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>880 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</td>
<td>LC50 0.28 mg/L (96 h)</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 68424-85-1</td>
<td>EC50 Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa m²/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>
### SECTION 14: TRANSPORT INFORMATION (continued)

| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group, if applicable: | Non-applicable |
| 14.5 Environmental hazard: | No |
| 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
| Physico-Chemical properties: | see section 9 |
| 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group, if applicable: | Non-applicable |
| 14.5 Environmental hazard: | No |
| 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
| Physico-Chemical properties: | see section 9 |
| 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group, if applicable: | Non-applicable |
| 14.5 Environmental hazard: | No |
| 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
| Physico-Chemical properties: | see section 9 |
| 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
## SECTION 15: REGULATORY INFORMATION (continued)

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313)</td>
<td>2-butoxyethanol</td>
</tr>
<tr>
<td>California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>The Toxic Substances Control Act (TSCA)</td>
<td>Cocamidopropyl Betaine ; 2-butoxyethanol ; Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</td>
</tr>
<tr>
<td>Massachusetts RTK - Substance List</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>New Jersey Worker and Community Right-to-Know Act</td>
<td>2-butoxyethanol</td>
</tr>
<tr>
<td>New York RTK - Substance list</td>
<td>2-butoxyethanol</td>
</tr>
<tr>
<td>Pennsylvania Worker and Community Right-to-Know Law</td>
<td>2-butoxyethanol</td>
</tr>
<tr>
<td>CANADA-Domestic Substances List (DSL)</td>
<td>Cocamidopropyl Betaine ; 2-butoxyethanol ; Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</td>
</tr>
<tr>
<td>CANADA-Non-Domestic Substances List (NDSL)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>NTP (National Toxicology Program)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Minnesota - Hazardous substances ERTK</td>
<td>2-butoxyethanol</td>
</tr>
<tr>
<td>Rhode Island - Hazardous substances RTK</td>
<td>2-butoxyethanol</td>
</tr>
<tr>
<td>Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

**Other legislation:**

The Toxic Substances Control Act (TSCA)

Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

---

## SECTION 16: OTHER INFORMATION

**Legislation related to safety data sheets:**

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

**Texts of the legislative phrases mentioned in section 2:**

- H315: Causes skin irritation
- H318: Causes serious eye damage

**Texts of the legislative phrases mentioned in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

- **29 CFR 1910.1200:**
  - Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin
  - Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
  - Eye Dam. 1: H318 - Causes serious eye damage
  - Eye Irrit. 2: H319 - Causes serious eye irritation
  - Flam. Liq. 4: H227 - Combustible liquid
  - Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
  - Skin Irrit. 2: H315 - Causes skin irritation

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**

- CONTINUED ON NEXT PAGE -
## SECTION 16: OTHER INFORMATION (continued)

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 2551 - Lustra™ Low pH Red Polish - Raspberry

1.2 Recommended use of the chemical and restrictions on use:
- Relevant uses: Chemical cleaning products
- High foaming liquid detergent for use in commercial car washes.
- Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
- Cleaning Systems, Inc.
  1997 American Blvd
  54115 De Pere - United States
  Phone.: 9203372175 - Fax: 9203379410
  chemcompliance@cleaningsystemsinc.com
  http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
- 29 CFR 1910.1200:
  - Eye Dam. 1: Serious eye damage, Category 1, H318
  - Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
- 29 CFR 1910.1200:
  - Danger

  Hazard statements:
  - Eye Dam. 1: H318 - Causes serious eye damage
  - Skin Irrit. 2: H315 - Causes skin irritation
  - Precautionary statements:
    - P264: Wash thoroughly after use
    - P280: Wear protective gloves/protective clothing/eye protection/face protection
    - P302+P352: IF ON SKIN: Wash with plenty of soap and water
    - P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
    - P310: Immediately call a poison center/doctor
    - P332+P313: If skin irritation occurs: Get medical advice/attention

2.3 Substances that contribute to the classification
- Cocamidopropyl Betaine; Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

Acute Toxicity Estimate (ATE mix):
- 7.71 % (oral), 7.71 % (dermal), 8.91 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
- Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
- Non-applicable

3.2 Mixtures:

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Cocamidopropyl Betaine</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 68424-85-1</td>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spillt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol, CAS: 56-81-5</td>
<td>8-hour TWA PEL 5 mg/m³ Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>Ethanol, CAS: 64-17-5</td>
<td>8-hour TWA PEL 1000 ppm Ceiling Values - TWA PEL 1900 mg/m³</td>
</tr>
<tr>
<td>Phosphoric acid, CAS: 7664-38-2</td>
<td>8-hour TWA PEL 1 mg/m³ Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>2-butoxyethanol, CAS: 111-76-2</td>
<td>8-hour TWA PEL 50 ppm Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

F.- Additional emergency measures
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Red
- Odor: Fruity
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 213 °F
- Vapour pressure at 68 °F: 2348 Pa
- Vapour pressure at 122 °F: 92.76 (12.37 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1036.3 kg/m³
- Relative density at 68 °F: 1.036
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: >2.6 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</td>
<td>LD50 oral 344 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 68424-85-1</td>
<td>LD50 dermal 1100 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>22870.79 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>44049.87 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>880 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</td>
<td>LC50 0.28 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 68424-85-1</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BODs 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td>BODs/COD 0.32</td>
<td>% Biodegradable 96 %</td>
<td></td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td>Potential</td>
<td>Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td>Surface tension</td>
<td>2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>Section</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Cocamidopropyl Betaine; 2-butoxyethanol; Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Cocamidopropyl Betaine; 2-butoxyethanol; Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
## SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG:</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA:</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO:</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD:</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5:</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF:</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50:</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>CL50:</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50:</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW:</td>
<td>Octanol-water partition coefficient</td>
</tr>
<tr>
<td>Koc:</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 2552 - Lustra™ Low pH Yellow Polish - Raspberry

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
High foaming liquid detergent for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation
Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P332+P313: If skin irritation occurs: Get medical advice/attention

Substances that contribute to the classification
Cocamidopropyl Betaine; Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

Acute Toxicity Estimate (ATE mix):
7.56 % (oral), 7.56 % (dermal), 8.76 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Cocamidopropyl Betaine&lt;br&gt;Eye Dam. 1: H318; Skin Irrt. 2: H315 - Danger</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol&lt;br&gt;Acute Tox. 4: H302+H312+H332; Eye Irrt. 2: H319; Flam. Liq. 4: H227; Skin Irrt. 2: H315 - Warning</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 68424-85-1</td>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides&lt;br&gt;Acute Tox. 4: H302+H312; Skin Corr. 1B: H314 - Danger</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Substance</th>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol</td>
<td>CAS: 56-81-5</td>
<td>8-hour TWA PEL 5 mg/m³</td>
</tr>
<tr>
<td>Ethanol</td>
<td>CAS: 64-17-5</td>
<td>8-hour TWA PEL 1000 ppm 1900 mg/m³</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td>CAS: 7664-38-2</td>
<td>8-hour TWA PEL 1 mg/m³</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>CAS: 111-76-2</td>
<td>8-hour TWA PEL 50 ppm 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

- CONTINUED ON NEXT PAGE -
Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 ºF: Liquid
Appearance: Transparent
Color: Yellow
Odor: Solvent
Odour threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: 213 ºF
Vapour pressure at 68 ºF: 2348 Pa
Vapour pressure at 122 ºF: 92.77 (12.37 kPa)
Evaporation rate at 68 ºF: Non-applicable *

Product description:
Density at 68 ºF: 1034.4 kg/m³
Relative density at 68 ºF: 1.034
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: >2.6 at 100 %
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 ºF)
Flammbility (solid, gas): Non-applicable *
Autoignition temperature: 460 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refractive index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicity information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides CAS: 68424-85-1</td>
<td>LD50 oral 344 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1100 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral 22870.79 mg/kg (Calculation method)</td>
<td>7.56 %</td>
</tr>
<tr>
<td>Dermal 44049.87 mg/kg (Calculation method)</td>
<td>7.56 %</td>
</tr>
<tr>
<td>Inhalation 880 mg/L (4 h) (Calculation method)</td>
<td>8.76 %</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
<td></td>
</tr>
<tr>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokircheriella subcapitata</td>
<td>Algae</td>
<td></td>
</tr>
</tbody>
</table>

- CONTINUED ON NEXT PAGE -
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</td>
<td>LC50 0.28 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 68424-85-1</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 68424-85-1</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
<td></td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
### SECTION 15: REGULATORY INFORMATION (continued)

<table>
<thead>
<tr>
<th>Legislation related to safety data sheets:</th>
</tr>
</thead>
<tbody>
<tr>
<td>This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Texts of the legislative phrases mentioned in section 2:</th>
</tr>
</thead>
<tbody>
<tr>
<td>H315: Causes skin irritation</td>
</tr>
<tr>
<td>H318: Causes serious eye damage</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Texts of the legislative phrases mentioned in section 3:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>29 CFR 1910.1200:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin</td>
</tr>
<tr>
<td>Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled</td>
</tr>
<tr>
<td>Eye Dam. 1: H318 - Causes serious eye damage</td>
</tr>
<tr>
<td>Eye Irrit. 2: H319 - Causes serious eye irritation</td>
</tr>
<tr>
<td>Flam. Liq. 4: H227 - Combustible liquid</td>
</tr>
<tr>
<td>Skin Corr. 1B: H314 - Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>Skin Irrit. 2: H315 - Causes skin irritation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Advice related to training:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Principal bibliographical sources:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational Safety &amp; Health Administration (OSHA).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Abbreviations and acronyms:</th>
</tr>
</thead>
</table>

- CONTINUED ON NEXT PAGE -
SECTION 16: OTHER INFORMATION (continued)

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 2565 - Lustra™ Foaming Conditioner - Red
1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   High foaming liquid detergent for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3
1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com
1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Irrit. 2: Eye irritation, Category 2, H319
   Skin Irrit. 2: Skin irritation, Category 2, H315
2.2 Label elements:
   29 CFR 1910.1200:
   Warning
   Hazard statements:
   Eye Irrit. 2: H319 - Causes serious eye irritation
   Skin Irrit. 2: H315 - Causes skin irritation
   Precautionary statements:
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P302+P352: IF ON SKIN: Wash with plenty of soap and water
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P332+P313: If skin irritation occurs: Get medical advice/attention
   P337+P313: If eye irritation persists: Get medical advice/attention
   Substances that contribute to the classification
   Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate
   Acute Toxicity Estimate (ATE mix):
   1.45 % (oral), 12.63 % (dermal), 12.63 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity
2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable
3.2 Mixtures:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulfonate Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Substance</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>50 ppm, 240 mg/m³</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>

#### 8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Red
- Odor: Fruity
- Odour threshold: Non-applicable *

Vocatility:
- Boiling point at atmospheric pressure: 217 °F
- Vapour pressure at 68 °F: 2327 Pa
- Vapour pressure at 122 °F: 91.95 (12.26 kPa)
- Evaporation rate at 68 °F: Non-applicable *

Product description:
- Density at 68 °F: 1039.6 kg/m³
- Relative density at 68 °F: 1.04
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 8 - 10 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

Flammability:
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Refraction index:</th>
<th>Non-applicable *</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Not relevant due to the nature of the product, not providing information property of its hazards.</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition to Avoid</th>
<th>Not applicable</th>
<th>Precaution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td>Contact with air</td>
<td>Increase in temperature</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Incompatible Material</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3); Brilliant blue FCF (C.I.42900/C.I.Acid Blue 9) (3); Benzyl acetate (3); Coumarin (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Alkylbenzyl Sodium Sulfonate CAS: Proprietary</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate CAS: 64-02-8</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>4528.48 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>20580.96 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>213.58 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

CONTINUED ON NEXT PAGE -
## SECTION 12: ECOLOGICAL INFORMATION (continued)

### Identification

<table>
<thead>
<tr>
<th>Species</th>
<th>Genus</th>
<th>LC50</th>
<th>EC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lepomis macrochirus</td>
<td>Fish</td>
<td>121 mg/L (96 h)</td>
<td>140 mg/L (48 h)</td>
</tr>
<tr>
<td>Daphnia magna</td>
<td>Crustacean</td>
<td>Non-applicable</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BODS 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td>Potential Low</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -13</td>
</tr>
<tr>
<td>Potential Low</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.5 Results of PBT and vPvB assessment:

Non-applicable

#### 12.6 Other adverse effects:

Not described

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

## SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H319: Causes serious eye irritation

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).
Abbreviations and acronyms:
### SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>CL50</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW</td>
<td>Octanol-water partition coefficient</td>
</tr>
<tr>
<td>Koc</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 2566 - Lustra™ Foaming Conditioner - Yellow

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
High foaming liquid detergent for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Irrit. 2: Eye irritation, Category 2, H319
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
29 CFR 1910.1200:
Warning

Hazard statements:
Eye Irrit. 2: H319 - Causes serious eye irritation
Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P332+P313: If skin irritation occurs: Get medical advice/attention
P337+P313: If eye irritation persists: Get medical advice/attention

Substances that contribute to the classification
Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate

Acute Toxicity Estimate (ATE mix):
1.45 % (oral), 12.63 % (dermal), 12.63 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulfonate&lt;br&gt;Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol&lt;br&gt;Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate&lt;br&gt;Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By Inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. - Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. - Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. - Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B. - General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td></td>
</tr>
</tbody>
</table>

8-hour TWA PEL 50 ppm 240 mg/m³

8-hour TWA PEL 2 mg/m³

8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 ºF: Liquid
Appearance: Transparent
Color: Yellow
Odor: Fruity
Odour threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: 217 ºF
Vapour pressure at 68 ºF: 2327 Pa
Vapour pressure at 122 ºF: 91.95 (12.26 kPa)
Evaporation rate at 68 ºF: Non-applicable *

Product description:
Density at 68 ºF: 1042.1 kg/m³
Relative density at 68 ºF: 1.042
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: 8 - 10 at 100 %
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 ºF: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3); Benzyl acetate (3); Coumarin (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>4528.48 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>20580.96 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>213.58 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>
## SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96%</td>
</tr>
</tbody>
</table>

### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log 0.13</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.72E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

### 12.5 Results of PBT and vPvB assessment:

Non-applicable

### 12.6 Other adverse effects:

Not described

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

## SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises.</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate
CANADA-Non-Domestic Substances List (NDSSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H319: Causes serious eye irritation

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:

- CONTINUED ON NEXT PAGE -
SECTION 16: OTHER INFORMATION (continued)

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
## SECTION 1: IDENTIFICATION

### 1.1 GHS Product Identifier:
2567 - Lustra™ Foaming Conditioner - Blue

### 1.2 Recommended use of the chemical and restrictions on use:
- Relevant uses: Chemical cleaning products
- High foaming liquid detergent for use in commercial car washes.
- Uses advised against: All uses not specified in this section or in section 7.3

### 1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

### 1.4 Emergency phone number:
1-800-424-9300 or 1-703-527-3887

## SECTION 2: HAZARD(S) IDENTIFICATION

### 2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
- Eye Irrit. 2: Eye irritation, Category 2, H319
- Skin Irrit. 2: Skin irritation, Category 2, H315

### 2.2 Label elements:
29 CFR 1910.1200:
Warning

- **Hazard statements:**
  - Eye Irrit. 2: H319 - Causes serious eye irritation
  - Skin Irrit. 2: H315 - Causes skin irritation

- **Precautionary statements:**
  - P264: Wash thoroughly after use
  - P280: Wear protective gloves/protective clothing/eye protection/face protection
  - P302+P352: IF ON SKIN: Wash with plenty of soap and water
  - P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
  - P332+P313: If skin irritation occurs: Get medical advice/attention
  - P337+P313: If eye irritation persists: Get medical advice/attention

- **Substances that contribute to the classification**
  - Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate

- **Acute Toxicity Estimate (ATE mix):**
  - 1.45 % (oral), 12.63 % (dermal), 12.63 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

### 2.3 Other hazards which do not result in classification:
Non-applicable

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances:
Non-applicable

### 3.2 Mixtures:
- CONTINUED ON NEXT PAGE -
**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)**

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>CAS:</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>Proprietary</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H310; STOT SE 3: H335 - Warning</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2-butoxyethanol</td>
<td>111-76-2</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>64-02-8</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

**SECTION 4: FIRST-AID MEASURES**

4.1 **Description of necessary measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 **Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

4.3 **Indication of immediate medical attention and special treatment needed, if necessary:**

Non-applicable

**SECTION 5: FIRE-FIGHTING MEASURES**

5.1 **Suitable (and unsuitable) extinguishing media:**

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 **Specific hazards arising from the chemical:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 **Special protective equipment and precautions for fire-fighters:**

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL: 50 ppm, Ceiling Values - TWA PEL: 240 mg/m³</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL: 2 mg/m³, Ceiling Values - TWA PEL:</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation; the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Blue
- Odor: Fruity
- Odour threshold: Non-applicable *

**Volutility:**
- Boiling point at atmospheric pressure: 217 °F
- Vapour pressure at 68 °F: 2327 Pa
- Vapour pressure at 122 °F: 91.96 (12.26 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1038.5 kg/m³
- Relative density at 68 °F: 1.038
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 8 - 10 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Refraction index:</th>
<th>Non-applicable *</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Not relevant due to the nature of the product, not providing information property of its hazards.</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3); Benzyl acetate (3); Coumarin (3); Brilliant blue FCF (C.I.4290/C.I.Acid Blue 9) (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>4528.48 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>20580.96 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>213.58 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

### Acute toxicity

<table>
<thead>
<tr>
<th>Identification</th>
<th>LC50</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC50</td>
<td>140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>EC50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td>0.71 g O2/g</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
<td>100 mg/L</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2 g O2/g</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.32</td>
<td>% Biodegradable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>96 %</td>
<td></td>
</tr>
</tbody>
</table>

#### Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td></td>
</tr>
</tbody>
</table>

#### Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Koc</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Henry</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>Very High</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>2.729E-2 N/m (77 °F)</td>
</tr>
<tr>
<td></td>
<td>Moist soil</td>
<td>Yes</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Koc</td>
<td>1046</td>
</tr>
<tr>
<td></td>
<td>Henry</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Moist soil</td>
<td>No</td>
</tr>
</tbody>
</table>

Results of PBT and vPvB assessment:

- Non-applicable

Other adverse effects:

- Not described

SECTION 13: DISPOSAL CONSIDERATIONS

### Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:
### SECTION 14: TRANSPORT INFORMATION (continued)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number:</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number:</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number:</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>15.1 Safety, health and environmental regulations specific for the product in question:</td>
<td></td>
</tr>
</tbody>
</table>

- CONTINUED ON NEXT PAGE -
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H319: Causes serious eye irritation

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
### SECTION 16: OTHER INFORMATION (continued)

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

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**Manufacturer Disclaimer:** The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 2604 - Streak-Free®

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products

Concentrated liquid glass cleaner for commercial car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

2.2 Label elements:

29 CFR 1910.1200:
None

2.3 Other hazards which do not result in classification:

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>5 - &lt;10 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By Inhalation:
### SECTION 4: FIRST-AID MEASURES (continued)

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**
This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

**By eye contact:**
Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

#### 4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

#### 4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

### SECTION 5: FIRE-FIGHTING MEASURES

#### 5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

#### 5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

#### 5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

#### 6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

#### 6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

#### 6.4 Reference to other sections:

- CONTINUED ON NEXT PAGE -
SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically
sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.
B. - Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow
speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information
on conditions and materials that should be avoided.
C. - Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D. - Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F
B. - General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this
product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. - Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal
Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by
the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the
information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing
application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard
assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance
B. - Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.
C. - Specific protection for the hands

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mandatory hand protection" /></td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mandatory face protection" /></td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Work clothing" /></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td><img src="image" alt="Anti-slip work shoes" /></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Blue
- Odor: Mild
- Odor threshold: Non-applicable *

**Volutility:**
- Boiling point at atmospheric pressure: 216 ºF
- Vapour pressure at 68 ºF: 2330 Pa
- Vapour pressure at 122 ºF: 92.09 (12.28 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Product description:
Density at 68 ºF: 1024 kg/m³
Relative density at 68 ºF: 1.024
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: 7 - 9 at 100 %
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

Other information:
Surface tension at 68 ºF: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alcalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
SECTION 10: STABILITY AND REACTIVITY (continued)

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3); 2,2´,2´´-nitrilotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>26011.77 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>19499.63 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>202.35 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g Concentration 100 mg/L</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g Period 14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32 % Biodegradable 96 %</td>
<td></td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and
   the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA): 2-butoxyethanol
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
   New York RTK - Substance list: 2-butoxyethanol
   Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
   CANADA-Domestic Substances List (DSL): 2-butoxyethanol
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: 2-butoxyethanol
   Rhode Island - Hazardous substances RTK: 2-butoxyethanol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

- CONTINUED ON NEXT PAGE -
Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, it is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 2715 - UltraClear™

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products
Liquid alkaline cleaner for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Repr. 1B: Reproductive toxicity, Category 1B, H360
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:

29 CFR 1910.1200:
Danger

Hazard statements:
Eye Dam. 1: H318 - Causes serious eye damage
Repr. 1B: H360 - May damage fertility or the unborn child
Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:
P201: Obtain special instructions before use
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P315+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313: IF exposed or concerned: Get medical advice/attention
P310: Immediately call a poison center/doctor
P501: Dispose of contents and/or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: 12179-04-3</td>
<td>Disodium tetraborate pentahydrate</td>
<td>Eye Irrit. 2: H319; Repr. 1B: H360 - Danger</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.
SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
PREGNANT WOMEN SHOULD NOT BE EXPOSED TO THIS PRODUCT. Transfer in fixed places that comply with the necessary security conditions (emergency showers and eyewash stations in close proximity), using personal protection equipment, especially on the hands and face (See section 8). Limit manual transfers to containers of small amounts. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

- CONTINUED ON NEXT PAGE -
SECTION 7: HANDLING AND STORAGE (continued)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td></td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td></td>
<td>3 ppm</td>
</tr>
<tr>
<td></td>
<td>6 mg/m³</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td></td>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>exposure to the product for professional / industrial users, we</td>
</tr>
<tr>
<td></td>
<td></td>
<td>recommend using chemical protection gloves. Use gloves in accordance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Orange
- Odor: Mild
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 213 °F
- Vapour pressure at 68 °F: 2345 Pa
- Vapour pressure at 122 °F: 92.68 (12.36 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1049.4 kg/m³
- Relative density at 68 °F: 1.049
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 11 - 13 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 707 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Diethanolamine (2B)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: May damage fertility or the unborn child

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disodium tetraborate pentahydrate</td>
<td>LD50 oral 3450 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 12179-04-3</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LD50 oral 3000 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Ethoxylated Alcohol</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

Not available

- CONTINUED ON NEXT PAGE -
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate, CAS: 64-02-8</td>
<td>BCF 2</td>
</tr>
<tr>
<td>Pow Log -13</td>
<td></td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate, CAS: 64-02-8</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td>Conclusion Low</td>
<td>Dry soil No</td>
<td></td>
</tr>
<tr>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
<td></td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
## SECTION 14: TRANSPORT INFORMATION (continued)

| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group, if applicable: | Non-applicable |
| 14.5 Environmental hazard: | No |
| 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
| Physico-Chemical properties: | see section 9 |
| 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group, if applicable: | Non-applicable |
| 14.5 Environmental hazard: | No |
| 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
| Physico-Chemical properties: | see section 9 |
| 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

## SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
- The Toxic Substances Control Act (TSCA): Ethoxylated Alcohol; Tetrasodium ethylenediaminetetraacetate; Quaternary Ammonium Compounds
- Massachusetts RTK - Substance List: Non-applicable
- New Jersey Worker and Community Right-to-Know Act: Disodium tetraborate pentahydrate
- New York RTK - Substance list: Non-applicable
- Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
- CANADA-Domestic Substances List (DSL): Ethoxylated Alcohol; Tetrasodium ethylenediaminetetraacetate; Quaternary Ammonium Compounds
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: Non-applicable
- Rhode Island - Hazardous substances RTK: Non-applicable
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
## SECTION 15: REGULATORY INFORMATION (continued)

<table>
<thead>
<tr>
<th>The Toxic Substances Control Act (TSCA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)</td>
</tr>
</tbody>
</table>

## SECTION 16: OTHER INFORMATION

### Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

### Texts of the legislative phrases mentioned in section 2:
- H315: Causes skin irritation
- H318: Causes serious eye damage
- H360: May damage fertility or the unborn child

### Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

#### 29 CFR 1910.1200:
- Acute Tox. 4: H302 - Harmful if swallowed
- Eye Dam. 1: H318 - Causes serious eye damage
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Repr. 1B: H360 - May damage fertility or the unborn child

### Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

### Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

### Abbreviations and acronyms:
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 2752 - Spectrum® Tire & Wheel Cleaner Reclaim Formula

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products

Liquid detergent for use in commercial car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:

29 CFR 1910.1200:
Danger

Hazard statements:
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P332+P313: If skin irritation occurs: Get medical advice/attention

2.3 Other hazards which do not result in classification:

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products
Components:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 127087-87-0</td>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 7320-34-5</td>
<td>Tetrapotassium pyrophosphate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation; however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. - Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. - Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. - Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B. - General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Green
- Odor: Solvent
- Odour threshold: Non-applicable *

**Volutility:**
- Boiling point at atmospheric pressure: 217 ºF
- Vapour pressure at 68 °F: 2327 Pa
- Vapour pressure at 122 °F: 91.98 (12.26 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1067.7 kg/m³
- Relative density at 68 °F: 1.068
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

### 9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity:

- CONTINUED ON NEXT PAGE -
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritation: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritation: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3); 2,2’,2’’-nitrilotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Tetrapotassium pyrophosphate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 7320-34-5</td>
<td>LD50 oral Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 4640 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 oral 3000 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

Contains phosphates. Excessive discharge may cause eutrophication.

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:
### SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc</td>
<td>4</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
</tbody>
</table>

#### 12.5 Results of PBT and vPvB assessment:

Non-applicable

#### 12.6 Other adverse effects:

Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

### SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable
   Transport of dangerous goods by air:
   With regard to IATA/ICAO 2019:
   14.1 UN number: Non-applicable
   14.2 UN proper shipping name: Non-applicable
   14.3 Transport hazard class(es): Non-applicable
      Labels: Non-applicable
   14.4 Packing group, if applicable: Non-applicable
   14.5 Environmental hazard: No
   14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
      transport or conveyance either within or outside their premises
      Physico-Chemical properties: see section 9
   14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
      Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA) : 4-Nonylphenol, branched, ethoxylated ; 2-butoxyethanol ; Tetrapotassium
      pyrophosphate ; Quaternary Ammonium Compounds
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
   New York RTK - Substance list: 2-butoxyethanol
   Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
   CANADA-Domestic Substances List (DSL): 4-Nonylphenol, branched, ethoxylated ; 2-butoxyethanol ; Tetrapotassium
      pyrophosphate ; Quaternary Ammonium Compounds
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: 2-butoxyethanol
   Rhode Island - Hazardous substances RTK: 2-butoxyethanol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
   circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
   product.

Other legislation:
SECTION 15: REGULATORY INFORMATION (continued)

The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage
H315: Causes skin irritation

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: 5000 - LTD 5000™

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products

Liquid towel detergent for use in commercial car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Eye Dam. 1: Serious eye damage, Category 1, H318

2.2 Label elements:

29 CFR 1910.1200:

Danger

Hazard statements:

Eye Dam. 1: H318 - Causes serious eye damage

Precautionary statements:

P280: Wear protective gloves/protective clothing/eye protection/face protection

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310: Immediately call a poison center/doctor

Substances that contribute to the classification

Ethoxylated Alcohol; Alkyl Polyglycoside; Tetrasodium ethylenediaminetetraacetate

Acute Toxicity Estimate (ATE mix):

13.09 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>Sodium xylenesulphonate</td>
<td>Eye Irrit. 2: H319 - Warning</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Alkyl Polyglycoside</td>
<td>Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of modifications on the skin (stinging, redness, rashes, blisters,…), seek medical advice with this Safety data Sheet.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,….)

Additional provisions:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.

B. - Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. - Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. - Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B. - General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

- CONTINUED ON NEXT PAGE -
8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, ...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)

E. - Bodily protection

Replace before any evidence of deterioration.

F. - Additional emergency measures

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Green
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 213 ºF
- Vapour pressure at 68 ºF: 2343 Pa
- Vapour pressure at 122 ºF: 92.6 (12.35 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1044 kg/m³
- Relative density at 68 °F: 1.044
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 10 - 11 at 1 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 545 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

- CONTINUED ON NEXT PAGE -
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium xylenesulphonate</td>
<td>LD50 oral 7200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral 115886.67 mg/kg (Calculation method)</td>
<td>13.09 %</td>
</tr>
<tr>
<td>Dermal &gt;5000 mg/kg (Calculation method)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Inhalation &gt;20 mg/L (4 h) (Calculation method)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Polyglycoside</td>
<td>LC50 126 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 151 mg/L (48 h)</td>
<td>Acanthella tonsa</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 27 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirrus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Polyglycoside</td>
<td>BODs Non-applicable</td>
<td>Concentration Non-applicable</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 100 %</td>
</tr>
</tbody>
</table>

### 12.3 Bioaccumulative potential:

- CONTINUED ON NEXT PAGE -
**SECTION 12: ECOLOGICAL INFORMATION (continued)**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -13</td>
</tr>
<tr>
<td>Potential</td>
<td>Low</td>
</tr>
</tbody>
</table>

**12.4 Mobility in soil:**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Polyglycoside</td>
<td>Koc 50</td>
<td>Henry 1.2E-8 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
<td></td>
</tr>
</tbody>
</table>

| Tetrasodium ethylenediaminetetraacetate | Koc 1046 | Henry 0E+0 Pa·m³/mol |
| CAS: 64-02-8 | Conclusion Low | Dry soil No |
| Surface tension Non-applicable | Moist soil No |

**12.5 Results of PBT and vPvB assessment:**

Non-applicable

**12.6 Other adverse effects:**

Not described

---

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1 Disposal methods:**

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

---

**SECTION 14: TRANSPORT INFORMATION**

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA): Ethoxylated Alcohol; Sodium xylenesulphonate; Alkyl Polyglycoside; Tetrasodium ethylenediaminetetraacetate
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: Non-applicable
   New York RTK - Substance list: Non-applicable
   Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
   CANADA-Domestic Substances List (DSL): Ethoxylated Alcohol; Sodium xylenesulphonate; Alkyl Polyglycoside; Tetrasodium ethylenediaminetetraacetate
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Non-applicable
   Rhode Island - Hazardous substances RTK: Non-applicable
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

   Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.
   Other legislation:

- CONTINUED ON NEXT PAGE -
SECTION 15: REGULATORY INFORMATION (continued)

The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
Section 1. Product & Company Identification

Product Name: Vision™ ULTRA
New & Improved
Product Description & Use: Concentrated Liquid Glass Cleaner for commercial car washes.

Section 2. Hazards Identification

Hazard Class: Acute Tox. 4, Eye Damage 1, Skin Corr. 1B
Signal Word: Danger

Hazard Statement(s):
- H315: Causes skin irritation.
- H318: Causes serious eye damage.
- H302: Harmful if swallowed.

Precautionary Statement(s):
- P280: Wear protective gloves / eye protection.

Precautionary Response Statement(s):
- P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
- P310: Immediately call a POISON CENTER or doctor/physician.
- P302 + P353 + P352: IF ON Skin: Wash with plenty of water.

Disposal: P501: Dispose of contents/container in accordance with local/regional/national regulations.

Section 3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>CAS #</th>
<th>EC #</th>
<th>Wt. %</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monoethanolamine</td>
<td>141-43-5</td>
<td>205-483-3</td>
<td>1-5</td>
<td>Acute Tox. 4, Skin Corr. 1B</td>
</tr>
<tr>
<td>Surfactant Mixture</td>
<td>Proprietary</td>
<td></td>
<td>1-5</td>
<td>Acute Tox. 4, Eye Dam. 1/Skin Irr. 2</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>203-905-0</td>
<td>1-5</td>
<td>Acute Tox. 4, Eye/Skin Irritant 2</td>
</tr>
</tbody>
</table>

Section 4: First Aid Measures

Eyes: Flush with clear water for at least 15 minutes. Get immediate medical attention.
Skin: Rinse well with water. Remove contaminated clothing.
Ingestion: Give water if conscious. Do not induce vomiting, although vomiting may occur naturally. Get immediate medical attention.
Inhalation: Harmful exposure is unlikely. Move to fresh air. If irritation persists, get medical attention.

Section 5: Fire Fighting Measures

Flammable Properties: Combustible liquid.
Unusual Fire & Explosion Hazards: None known.
Fire Fighting Procedures: Appropriate for surrounding materials. Use Dry chemical, CO2, Alcohol-Resistant Foam or water Spray.

Section 6: Accidental Release Measures

Personal Precautions: Use personal protective equipment recommended in Section 8.
Environmental Precautions: Keep spills away from storm drains, surface water and soil.
Spills and Leaks: Small spills - Rinse to drain. Large spills - Contain for reclamation or disposal.
Caution: Spills of this material may cause floor to become slippery.

Section 7: Handling and Storage

Store in original container at temperatures below 120°F.
Product is for use as a protection product in commercial, automatic car wash applications.

Section 8: Exposure Controls / Personal Protection

Ingredient Exposure Limits

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>50 ppm TWA skin</td>
<td>20 ppm TWA skin</td>
</tr>
</tbody>
</table>

Personal Protection

Eyes: Wear Chemical Goggles when handling concentrated product.
Skin: Neoprene Gloves when handling concentrated product.
Respiratory: Good General Ventilation. Respirator not normally required. Avoid being sprayed by diluted product in the car wash.
Product Name: **Vision™ ULTRA**  
Product Number: **95115**

**Section 9: Physical and Chemical Properties**
- **Appearance:** Clear, dark blue colored liquid.  
- **pH full strength:** 11  
- **Freezing Point:** below 10°F (-12 °C).  
- **Flash Point:** Near Water  
- **Evaporation Rate:** Not determined.  
- **Specific Gravity:** 1.0  
- **Solubility in Water:** Miscible  
- **Partition coefficient:** Not Determined.  
- **Odor:** Mild cherry solvent.  
- **% Volatile (w/w):** >80 mostly water  
- **Odor Threshold:** Not Determined.  
- **Vapor Pressure:** Not Determined.  
- **Freezing Point:** below 10°F (-12 °C).  
- **Initial Boiling Point:** Not Determined.  
- **Decomposition Temperature:** Not Applicable.  
- **Auto-Ignition Temperature:** Not Applicable.

**Section 10: Stability and Reactivity**
- **Stability:** This is a stable material.  
- **Materials to Avoid:** None known.  
- **Hazardous Polymerization:** will NOT occur.

**Section 11: Toxicological Information**
- **Acute toxicity:** No data is available on this mixture. The results based on calculation as per chapter 3.1.3.6 Rev 5 GHS are above the classification limits.  
- **Skin Corrosion / Irritation:** This product is irritating to skin with exposures of 1 hour.  
- **Serious Eye damage / Irritation:** This product is irritating to eyes with any exposure.  
- **Respiratory of Skin Sensitization:** No data available.  
- **Germ Cell Mutagenicity:** No data available on this mixture. No indication from ingredients.  
- **Carcinogenicity:** No data available on this mixture.  
- **Reproductive Toxicity:** No data available on this mixture. No indication from ingredients.  
- **STOST-Single Exposure:** No data available on this mixture. No indication from ingredients.  
- **STOST-Repeated Exposure:** No data available on this mixture. No indication from ingredients.  
- **Aspiration Hazard:** No data available on this mixture.  
- **No toxicological data is available on this mixture.**  
- **For information on ingredients, write to the email addresses listed in Section 1 of this SDS.**

**Section 12: Ecological Information**
- **Ecological Toxicity:** No data is available on this mixture.  
- **Biodegradability:** No data is available on this mixture.  
- **This product does NOT contain Phosphates.**

**Section 13: Disposal Considerations**
- **Follow all Federal, State, and Local Regulations appropriate for this material.**  
- **Wastewater resulting from use of this product should be directed to a properly operating wastewater treatment facility.**

**Section 14: Transportation Information**
- **ADR/RID/IMO/ICAO/US DOT.** Hazardous Material Class: Not a DOT Hazardous Material  
- **UN Number:** Not Applicable

**Section 15: Regulatory Information**
- **EPA SARA Title III Section 312 (40CFR 370) Hazard Classification of ingredients:** Acute Health Hazard.  
- **This product does not contain any chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.**

**Section 16: Other Information**
- **Prepared by Cleaning Systems, Inc.**  
- **Phone:** 1-920-337-2175  
- **Version:** 01  
- **Revision Date:** 15- Jan-19  
- **Supersedes:** New

The information relates to this specific material. It may not be valid for this material if used in combination with any other materials or in any process. CSI (Cleaning Systems, Incorporated) makes no warranty, express or implied, as to the accuracy or completeness or adequacy of information herein, except that such information is to the best of CSI's belief, accurate as of the date indicated. CSI assumes no responsibility for injury from the use of the product described herein.

*Cleaning Systems, Inc., P.O. Box 5606, De Pere, WI 54115-5606, U.S.A., Phone: 920-337-2175*
SECTION 1: IDENTIFICATION

1.1 **GHS Product identifier:** UF021 - Base 021 Medium Alkaline

1.2 **Recommended use of the chemical and restrictions on use:**

- **Relevant uses:** Chemical cleaning products
- **Powdered high alkaline detergent base for commercial vehicle washes.**
- **Uses advised against:** All uses not specified in this section or in section 7.3

1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 **Classification of the substance or mixture:**

- **29 CFR 1910.1200:**
  - Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
  - **Eye Dam. 1:** Serious eye damage, Category 1, H318
  - **Met. Corr. 1:** Corrosive to metals, Category 1, H290
  - **Skin Corr. 1A:** Skin corrosion, Category 1A, H314
  - **STOT SE 3:** Respiratory tract toxicity, single exposure, Category 3, H335

2.2 **Label elements:**

- **Danger**

  - **Hazard statements:**
    - **Met. Corr. 1:** H290 - May be corrosive to metals
    - **Skin Corr. 1A:** H314 - Causes severe skin burns and eye damage
    - **STOT SE 3:** H335 - May cause respiratory irritation

  - **Precautionary statements:**
    - **P234:** Keep only in original container
    - **P280:** Wear protective gloves/protective clothing/eye protection/face protection
    - **P301+P330+P331:** IF SWALLOWED: rinse mouth. Do NOT induce vomiting
    - **P303+P361+P330:** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
    - **P304+P340:** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
    - **P305+P351+P338:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
    - **P403+P233:** Store in a well-ventilated place. Keep container tightly closed
    - **P501:** Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

  - **Substances that contribute to the classification**
    - Sodium Metasilicate; Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; Sodium hydroxide

  - **Acute Toxicity Estimate (ATE mix):**
    - 93.19 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 **Other hazards which do not result in classification:**

- **Non-applicable**
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>CAS:</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary</td>
<td>Eye Irrit. 2: H319 - Warning</td>
<td>35 - &lt;65 %</td>
</tr>
<tr>
<td>Non-applicable</td>
<td>Sodium Metasilicate</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By inhalation:
Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5
SECTION 7: HANDLING AND STORAGE (continued)

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Substance</th>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
<td></td>
</tr>
</tbody>
</table>

Nuisance dust: Inhalable dust 10 mg/m³ // Respirable dust 4 mg/m³

8.2 Appropriate engineering controls:
A. - Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands
   Mandatory hand protection
   Protective gloves against minor risks
   Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)

   As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection
   Mandatory face protection
   Panoramic glasses against splash/projections.
   Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)

E. - Bodily protection
   Work clothing
   Replace before any evidence of deterioration.

   Anti-slip work shoes
   Replace before any evidence of deterioration.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Solid
- Appearance: Granulated
- Color: Yellowish
- Odor: Not available
- Odour threshold: Non-applicable *

**Volutility:**
- Boiling point at atmospheric pressure: Non-applicable *
- Vapour pressure at 68 °F: Non-applicable *
- Vapour pressure at 122 °F: Non-applicable *
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 2098.5 kg/m³
- Relative density at 68 °F: 2.098
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 13.4 at 10 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non-applicable
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: Non-applicable *
- Lower flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Upper flammability limit: Non-applicable *
Explosive: 
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

**9.2 Other information:**
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY**

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can react violently</td>
<td>Can react violently</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION**

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

**Dangerous health implications:**
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

- **A- Ingestion (acute effect):**
  - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
  - Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

- **B- Inhalation (acute effect):**
  - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
  - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

- **C- Contact with the skin and the eyes (acute effect):**
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3. IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**Other information:**

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2526.35 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;5 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td>LC50 210 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>EC50 216 mg/L (96 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>EC50 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate CAS: 64-02-8</td>
<td></td>
</tr>
<tr>
<td>BCF</td>
<td>2</td>
</tr>
<tr>
<td>Pow Log</td>
<td>-13</td>
</tr>
<tr>
<td>Potential</td>
<td>Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate CAS: 64-02-8</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td>Conclusion</td>
<td>Low</td>
<td>Dry soil</td>
</tr>
<tr>
<td>Surface tension</td>
<td>Non-applicable</td>
<td>Moist soil</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN1823
14.2 UN proper shipping name: SODIUM HYDROXIDE, SOLID
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:
## SECTION 14: TRANSPORT INFORMATION (continued)

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>UN1823</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>SODIUM HYDROXIDE, SOLID</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>see section 9</td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
</tbody>
</table>

### Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>UN1823</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>SODIUM HYDROXIDE, SOLID</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>see section 9</td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
</tbody>
</table>

### Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):

Non-applicable

## SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
- The Toxic Substances Control Act (TSCA) : Sodium Metasilicate ; Sodium hydroxide ; Tetrasodium ethylenediaminetetraacetate
- Massachusetts RTK - Substance List: Sodium hydroxide
- New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide
- New York RTK - Substance list: Sodium hydroxide
- Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide
- CANADA-Domestic Substances List (DSL): Sodium Metasilicate ; Sodium hydroxide ; Tetrasodium ethylenediaminetetraacetate
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: Sodium hydroxide
- Rhode Island - Hazardous substances RTK: Sodium hydroxide
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
SECTION 15: REGULATORY INFORMATION (continued)

| The Toxic Substances Control Act (TSCA) |
| Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances) |

SECTION 16: OTHER INFORMATION

**Legislation related to safety data sheets:**
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

**Texts of the legislative phrases mentioned in section 2:**
- H318: Causes serious eye damage
- H290: May be corrosive to metals
- H335: May cause respiratory irritation
- H314: Causes severe skin burns and eye damage

**Texts of the legislative phrases mentioned in section 3:**
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
- Acute Tox. 4: H302 - Harmful if swallowed
- Eye Dam. 1: H318 - Causes serious eye damage
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Met. Corr. 1: H290 - May be corrosive to metals
- Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
- Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
- STOT SE 3: H335 - May cause respiratory irritation

**Advice related to training:**
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**
Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, it is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).

END OF SAFETY DATA SHEET
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF030 - Liquibase 030

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products
Liquid alkaline detergent builder solution for use in vehicle wash applications.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Repr. 1B: Reproductive toxicity, Category 1B, H360
Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:

29 CFR 1910.1200:
Danger

Hazard statements:
Repr. 1B: H360 - May damage fertility or the unborn child
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P201: Obtain special instructions before use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313: IF exposed or concerned: Get medical advice/attention
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; Potassium hydroxide; Disodium tetraborate decahydrate

Acute Toxicity Estimate (ATE mix):
20.95 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td></td>
<td>Skin Corr. 1A: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>Potassium hydroxide</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Skin Corr. 1A: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 1303-96-4</td>
<td>Disodium tetraborate decahydrate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Repr. 1B: H360 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By inhalation:
This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

Other information:
Keep spills away from storm drains, surface water and soil. Small spills - Neutralize with dilute acid and rinse to drain with copious amounts of water. Large spills - Contain for reclamation or for disposal neutralize with dilute acid. Caution: Spills of this material may cause floor to become slippery.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
PREGNANT WOMEN SHOULD NOT BE EXPOSED TO THIS PRODUCT. Transfer in fixed places that comply with the necessary security conditions (emergency showers and eyewash stations in close proximity), using personal protection equipment, especially on the hands and face (See section 8). Limit manual transfers to containers of small amounts. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
SECTION 7: HANDLING AND STORAGE (continued)

D. - Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A. - Technical measures for storage

Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B. - General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

Other information:
Recommended indoor storage, no exposure to sunlight or extreme environments. Best if stored in original container at temperatures below 120 F.

7.3 Specific end use(s):

Liquid alkaline detergent builder solution for use in vehicle wash applications.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL: 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL: 2 mg/m³</td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>8-hour TWA PEL: 3 ppm</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>Ceiling Values - TWA PEL: 6 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

Date of compilation: 6/4/2019            Version: 1
### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

#### E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

#### F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Amber
- Odor: Mild
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 213 °F
- Vapour pressure at 68 °F: 2341 Pa
- Vapour pressure at 122 °F: 92.51 (12.33 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: ≈1221.9 kg/m³
- Relative density at 68 °F: ≈1.253 - 1.313
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 - 14 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decomposition temperature</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Flammability:</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>Non-Flammable (&gt;199.4 °F)</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>1224 °F</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Flammability</td>
<td></td>
</tr>
<tr>
<td>Explosive:</td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>9.2 Other Information:</td>
<td></td>
</tr>
<tr>
<td>Surface tension at 68 °F</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition to Avoid</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Incompatible with</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A– Ingestion (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Diethanolamine (2B)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: May damage fertility or the unborn child.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>LD50 oral 388 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Disodium tetraborate decahydrate</td>
<td>LD50 oral 4500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 1303-96-4</td>
<td>LD50 dermal 10000 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Route</th>
<th>Oral</th>
<th>Dermal</th>
<th>Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5609.49 mg/kg (Calculation method)</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
</tr>
<tr>
<td></td>
<td>20.95 %</td>
<td>Non-applicable</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

#### 12.1 Ecolot oxy (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>EC50 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochir</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>LC50 80 mg/L (48 h)</td>
<td>Gambussia afinity</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disodium tetraborate decahydrate</td>
<td>LC50 178 mg/L (72 h)</td>
<td>Carassius auratus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1303-96-4</td>
<td>EC50 1085 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 158 mg/L (96 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

Not available

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -13</td>
</tr>
<tr>
<td>Potential Low</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.5 Results of PBT and vPvB assessment:

Non-applicable

#### 12.6 Other adverse effects:

Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Neutralize with dilute acid before disposal.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

- CONTINUED ON NEXT PAGE -
### SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

- CONTINUED ON NEXT PAGE -
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; Potassium hydroxide; Disodium tetraborate decahydrate
Massachusetts RTK - Substance List: Sodium hydroxide; Potassium hydroxide
New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide; Potassium hydroxide; Disodium tetraborate decahydrate
New York RTK - Substance list: Sodium hydroxide; Potassium hydroxide; Disodium tetraborate decahydrate
Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide; Potassium hydroxide; Disodium tetraborate decahydrate
CANADA-Domestic Substances List (DSL): Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; Potassium hydroxide; Disodium tetraborate decahydrate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Sodium hydroxide; Potassium hydroxide; Disodium tetraborate decahydrate
Rhode Island - Hazardous substances RTK: Sodium hydroxide; Potassium hydroxide; Disodium tetraborate decahydrate
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds); Potassium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H360: May damage fertility or the unborn child

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Repr. 1B: H360 - May damage fertility or the unborn child
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
SECTION 16: OTHER INFORMATION (continued)

IMDG: International maritime dangerous goods code  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organisation  
COD: Chemical Oxygen Demand  
BOD5: 5-day biochemical oxygen demand  
BCF: Bioconcentration factor  
LD50: Lethal Dose 50  
CL50: Lethal Concentration 50  
EC50: Effective concentration 50  
Log-POW: Octanol-water partition coefficient  
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF031 - High Alkaline Base 031

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Powdered high alkaline detergent base for commercial vehicle washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Met. Corr. 1: Corrosive to metals, Category 1, H290
   Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Acute Tox. 4: H302 - Harmful if swallowed
   Met. Corr. 1: H290 - May be corrosive to metals
   Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

   Precautionary statements:
   P234: Keep only in original container
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor
   P501: Dispose of contents and/or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

   Substances that contribute to the classification
   Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate

   Acute Toxicity Estimate (ATE mix):
   82.56 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>35 - &lt;65 %</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1A: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By Inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By Skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By Eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By Ingestion/Aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effectcs, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.
SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)
Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
B.- Technical recommendations for the prevention of fires and explosions
Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F
B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>2 mg/m³</td>
</tr>
</tbody>
</table>

Nuisance dust: Inhalable dust 10 mg/m³ // Respirable dust 4 mg/m³

8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory hand protection</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
<tr>
<td></td>
<td>Protective gloves against minor risks</td>
<td></td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory face protection</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
<tr>
<td></td>
<td>Panoramic glasses against splash/projections</td>
<td></td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Solid
- Appearance: Not available
- Color: Not available
- Odor: Not available
- Odour threshold: Non-applicable *

**Vapour pressure at 68 °F:** Non-applicable *

**Vapour pressure at 122 °F:** Non-applicable *

**Evaporation rate at 68 °F:** Non-applicable *

**Product description:**
- Density at 68 °F: 1851.3 kg/m³
- Relative density at 68 °F: 1.851
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: Non-applicable *
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non-applicable
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: Non-applicable *
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Surface tension at 68 ºF: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can react violently</td>
<td>Can react violently</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate CAS: 64-02-8</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1837.07 mg/kg (Calculation method) 82.56 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method) Non-applicable</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;5 mg/L (4 h) (Calculation method) Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide CAS: 1310-73-2</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate CAS: 64-02-8</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

Not available

12.3 Bioaccumulative potential:
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -13</td>
</tr>
<tr>
<td>Potential</td>
<td>Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN1823
14.2 UN proper shipping name: SODIUM HYDROXIDE, SOLID
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN1823
14.2 UN proper shipping name: SODIUM HYDROXIDE, SOLID
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

14.1 UN number: UN1823
14.2 UN proper shipping name: SODIUM HYDROXIDE, SOLID
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA): Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate
   Massachusetts RTK - Substance List: Sodium hydroxide
   New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide
   New York RTK - Substance list: Sodium hydroxide
   Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide
   CANADA-Domestic Substances List (DSL): Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Sodium hydroxide
   Rhode Island - Hazardous substances RTK: Sodium hydroxide
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

- CONTINUED ON NEXT PAGE -
**SECTION 16: OTHER INFORMATION**

**Legislation related to safety data sheets:**
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

**Texts of the legislative phrases mentioned in section 2:**
- H318: Causes serious eye damage
- H290: May be corrosive to metals
- H302: Harmful if swallowed
- H314: Causes severe skin burns and eye damage

**Texts of the legislative phrases mentioned in section 3:**
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**29 CFR 1910.1200:**
- Acute Tox. 4: H302 - Harmful if swallowed
- Eye Dam. 1: H318 - Causes serious eye damage
- Met. Corr. 1: H290 - May be corrosive to metals
- Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

**Advice related to training:**
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**
Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF103 - Foamy Blend 103

1.2 Relevant uses of the chemical and restrictions on use:
- Chemical cleaning products
- Liquid detergent mixture for commercial car washes.

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 920-337-2175 - Fax: 920-337-9410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
- Eye Dam. 1: Serious eye damage, Category 1, H318
- Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
- Eye Dam. 1: H318 - Causes serious eye damage
- Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:
- P264: Wash thoroughly after use
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P302+P352: IF ON SKIN: Wash with plenty of soap and water
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P310: Immediately call a poison center/doctor
- P332+P313: If skin irritation occurs: Get medical advice/attention

Substances that contribute to the classification:
- 2-butoxyethanol; Sodium Alkylsulfonates; Ethoxylated Alcohol

Acute Toxicity Estimate (ATE mix):
- 0% (oral), 10.18% (dermal), 20.74% (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Sodium Alkylsulfonates</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. - Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. - Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. - Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B. - General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

- CONTINUED ON NEXT PAGE -
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Green
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 223 ºF
- Vapour pressure at 68 ºF: 2296 Pa
- Vapour pressure at 122 ºF: 90.75 (12.1 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1021.1 kg/m³
- Relative density at 68 ºF: 1.021
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: 6 - 8 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 ºF: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

- CONTINUED ON NEXT PAGE -
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3); Brilliant blue FCF (C.I.4290/C.I.Acid Blue 9) (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>LD50 oral 2290 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal 6300 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Ethoxylated Alcohol</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral 3578.02 mg/kg (Calculation method)</td>
<td>0 %</td>
</tr>
<tr>
<td>Dermal 8873.18 mg/kg (Calculation method)</td>
<td>10.18 %</td>
</tr>
<tr>
<td>Inhalation 81.25 mg/L (4 h) (Calculation method)</td>
<td>20.74 %</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>LC50 4.2 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 4.53 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 5.2 mg/L (72 h)</td>
<td>Skeletonema costatum</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>
## SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>BOD5</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Concentration</td>
<td>20 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Period</td>
<td>28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>% Biodegradable</td>
<td>96 %</td>
</tr>
</tbody>
</table>

### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>BCF 71</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Pow Log -1.3</td>
</tr>
<tr>
<td></td>
<td>Potential Moderate</td>
</tr>
</tbody>
</table>

### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m³ (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>Koc 1.6</td>
<td>Henry 6.7E-2 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Conclusion Very High</td>
<td>Dry soil Yes</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

### 12.5 Results of PBT and vPvB assessment:

- Non-applicable

### 12.6 Other adverse effects:

- Not described

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

## SECTION 14: TRANSPORT INFORMATION

### Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

| 15.1 | Safety, health and environmental regulations specific for the product in question: |
### SECTION 15: REGULATORY INFORMATION (continued)

- **SARA Title III -** Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
- **California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986):** Non-applicable
- **The Toxic Substances Control Act (TSCA):** 2-butoxyethanol; Sodium Alkylsulfonates; Ethoxylated Alcohol
- **Massachusetts RTK - Substance List:** Non-applicable
- **New Jersey Worker and Community Right-to-Know Act:** 2-butoxyethanol
- **New York RTK - Substance list:** 2-butoxyethanol
- **Pennsylvania Worker and Community Right-to-Know Law:** 2-butoxyethanol
- **CANADA-Domestic Substances List (DSL):** 2-butoxyethanol; Sodium Alkylsulfonates; Ethoxylated Alcohol
- **CANADA-Non-Domestic Substances List (NDSL):** Non-applicable
- **NTP (National Toxicology Program):** Non-applicable
- **Minnesota -** Hazardous substances ERTK: 2-butoxyethanol
- **Rhode Island -** Hazardous substances RTK: 2-butoxyethanol
- **OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096):** Non-applicable
- **Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302):** Non-applicable

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

**Other legislation:**

- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

### SECTION 16: OTHER INFORMATION

**Legislation related to safety data sheets:**

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

**Texts of the legislative phrases mentioned in section 2:**

- **H315:** Causes skin irritation
- **H318:** Causes serious eye damage

**Texts of the legislative phrases mentioned in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**29 CFR 1910.1200:**

- Acute Tox. 4: H302 - Harmful if swallowed
- Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
- Eye Dam. 1: H318 - Causes serious eye damage
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flam. Liq. 4: H227 - Combustible liquid
- Skin Irrit. 2: H315 - Causes skin irritation

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

- Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**

- CONTINUED ON NEXT PAGE -
SECTION 16: OTHER INFORMATION (continued)

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, it is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF104 - Blend 104

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Eye Dam. 1: Serious eye damage, Category 1, H318
Flam. Liq. 4: Flammable liquids, Category 4, H227
Skin Irrit. 2: Skin irritation, Category 2, H315
Skin Sens. 1: Sensitisation, skin, Category 1, H317

2.2 Label elements:

29 CFR 1910.1200:

Danger

Hazard statements:

Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
Skin Sens. 1: H317 - May cause an allergic skin reaction

Precautionary statements:

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P370+P378: In case of fire: Use ABC powder extinguisher to put it out
P403: Store in a well-ventilated place
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification

d-limonene; Ethoxylated Alcohol; 2-butoxyethanol; Ethanediol

Acute Toxicity Estimate (ATE mix):

5.75 % (oral), 25.75 % (dermal), 57.75 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity
SECTION 2: HAZARD(S) IDENTIFICATION (continued)

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 5989-27-5</td>
<td>d-limonene; Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol; Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol; Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Ethanediol; Acute Tox. 4: H302 - Warning</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol; Eye Dam. 1: H318 - Danger</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>C-21 dibasic fatty acid, potassium salt; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
SECTION 4: FIRST-AID MEASURES (continued)

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Combustible liquid. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. Technical recommendations for the prevention of fires and explosions
Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for conditions and materials that should be avoided.
SECTION 7: HANDLING AND STORAGE (continued)

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>240 mg/m³</td>
</tr>
<tr>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory hand protection</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
<tr>
<td></td>
<td>Protective gloves against minor risks</td>
<td></td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory face protection</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
<tr>
<td></td>
<td>Panoramic glasses against splash/projections</td>
<td></td>
</tr>
</tbody>
</table>

E.- Bodily protection

- CONTINUED ON NEXT PAGE -
## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

### F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
</tr>
</tbody>
</table>

### Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Turquoise
- Odor: Citric
- Odour threshold: Non-applicable *

**Voulatility:**
- Boiling point at atmospheric pressure: 272 °F
- Vapour pressure at 68 °F: 1944 Pa
- Vapour pressure at 122 °F: 76.93 (10.26 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 962.1 kg/m³
- Relative density at 68 °F: 0.962
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: Non-applicable *
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*
**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/freezing point</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Oxidising properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Flammability:</strong></td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>160 °F (ASTM D-92)</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature:</td>
<td>458 °F</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>9.2 Other information:</strong></td>
<td></td>
</tr>
<tr>
<td>Surface tension at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY**

10.1 **Reactivity:**
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 **Chemical stability:**
Chemically stable under the conditions of storage, handling and use.

10.3 **Possibility of hazardous reactions:**
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 **Conditions to avoid:**
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Risk of combustion</td>
<td>Avoid direct impact</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 **Incompatible materials:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td></td>
<td>Avoid direct impact</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 **Hazardous decomposition products:**
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION**

11.1 **Information on toxicological effects:**
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3); d-limonene (3); Brilliant blue FCF (C.I.4290/C.I.Acid Blue 9) (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>d-limonene CAS: 5989-27-5</td>
<td>LD50 oral 4400 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 5100 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Ethanediol CAS: 107-21-1</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 9530 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Ethoxylated Alcohol CAS: Proprietary</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Acute Toxicity Estimate (ATE mix):</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1578.41 mg/kg (Calculation method) 5.75 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>7567.79 mg/kg (Calculation method) 25.75 %</td>
</tr>
<tr>
<td>Inhalation</td>
<td>44.69 mg/L (4 h) (Calculation method) 57.75 %</td>
</tr>
</tbody>
</table>

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

#### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-limonene</td>
<td>LC50 0.702 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>EC50 0.577 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>Ethanediol</td>
<td>LC50 53000 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>EC50 51000 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 24000 mg/L (168 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-limonene</td>
<td>BOD5 Non-applicable</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>COD Non-applicable</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable</td>
</tr>
<tr>
<td>Ethanediol</td>
<td>BOD5 0.47 g O2/g</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>COD 1.29 g O2/g</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.36</td>
<td>% Biodegradable</td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-limonene</td>
<td>BCF 6.06</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>Potential</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Potential</td>
</tr>
<tr>
<td>Ethanediol</td>
<td>BCF 10</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Potential</td>
</tr>
</tbody>
</table>

#### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-limonene</td>
<td>Koc 6324</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>Conclusion Immobile</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.67E-2 N/m (77 °F)</td>
<td>Moist soil</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 3</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil</td>
</tr>
</tbody>
</table>
### SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>Koc</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>0</td>
<td>1.327E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>Conclusion</td>
<td>Very High</td>
<td>Dry soil</td>
</tr>
<tr>
<td>Surface tension</td>
<td>4.989E-2 N/m (77 ºF)</td>
<td>Moist soil</td>
</tr>
</tbody>
</table>

#### 12.5 Results of PBT and vPvB assessment:

- Non-applicable

#### 12.6 Other adverse effects:

- Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

### SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:

- **14.1 UN number:** Non-applicable
- **14.2 UN proper shipping name:** Non-applicable
- **14.3 Transport hazard class(es):** Non-applicable
- **Labels:** Non-applicable
- **14.4 Packing group, if applicable:** Non-applicable
- **14.5 Environmental hazard:** No
- **14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**
  - Physico-Chemical properties: see section 9

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):**

- **14.7 Non-applicable**

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
  SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol ; Ethanediol
  California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Ethanediol
  The Toxic Substances Control Act (TSCA): d-limonene ; Ethoxylated Alcohol ; 2-butoxyethanol ; Ethanediol ; Ethoxylated Alcohol ; C-21 dibasic fatty acid, potassium salt
  Massachussets RTK - Substance List: Ethanediol
  New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol ; Ethanediol
  New York RTK - Substance list: 2-butoxyethanol ; Ethanediol
  Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol ; Ethanediol
  CANADA-Domestic Substances List (DSL): d-limonene ; Ethoxylated Alcohol ; 2-butoxyethanol ; Ethanediol ; Ethoxylated Alcohol ; C-21 dibasic fatty acid, potassium salt
  CANADA-Non-Domestic Substances List (NDSL): Non-applicable
  NTP (National Toxicology Program): Non-applicable
  Minnesota - Hazardous substances ERTK: 2-butoxyethanol ; Ethanediol
  Rhode Island - Hazardous substances RTK: 2-butoxyethanol ; Ethanediol
  Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Ethanediol (5000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
SECTION 15: REGULATORY INFORMATION (continued)

The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage
H317: May cause an allergic skin reaction
H302: Harmful if swallowed
H227: Combustible liquid

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 3: H226 - Flammable liquid and vapour
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
Skin Sens. 1: H317 - May cause an allergic skin reaction
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF106 - Blend 106 Polymer

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Liquid detergent mixture for commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318

2.2 Label elements:
   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Eye Dam. 1: H318 - Causes serious eye damage

   Precautionary statements:
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor

   Substances that contribute to the classification
   Ethoxylated Alcohol

   Acute Toxicity Estimate (ATE mix):
   13.06 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:
   Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Alkyl imino dipropionic acid monosodium salt</td>
<td>Eye Irrit. 2B: H320</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>C-21 dibasic fatty acid, potassium salt</td>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.
B. - Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C. - Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D. - Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
Minimum Temp.: -4 ºF
Maximum Temp.: 120 ºF
B. - General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

Date of compilation: 2/28/2019  Version: 1
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

There are no occupational exposure limits for the substances contained in the product

**8.2 Appropriate engineering controls:**

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

9.1 Information on basic physical and chemical properties:

*Not relevant due to the nature of the product, not providing information property of its hazards.*

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Date of compilation: 2/28/2019   Version: 1
### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Viscous
- Color: Turquoise
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 212 ºF
- Vapour pressure at 68 ºF: 2350 Pa
- Vapour pressure at 122 ºF: 92.87 (12.38 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1028.1 kg/m³
- Relative density at 68 ºF: 1.028
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: >20.5 cSt
- Concentration: Non-applicable *
- pH: 6
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: Non-applicable *
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

**9.2 Other information:**
- Surface tension at 68 ºF: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

### SECTION 10: STABILITY AND REACTIVITY

**Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.
SECTION 10: STABILITY AND REACTIVITY (continued)

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Incompatible Material</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: Brilliant blue FCF (C.I.4290/C.I.Acid Blue 9) (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other Information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethoxylated Alcohol</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral 4140 mg/kg (Calculation method)</td>
<td>13.06 %</td>
</tr>
<tr>
<td>Dermal &gt;5000 mg/kg (Calculation method)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Inhalation &gt;20 mg/L (4 h) (Calculation method)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

Not available

12.2 Persistence and degradability:

Not available

12.3 Bioaccumulative potential:

Not available

12.4 Mobility in soil:

Not available

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in
direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-
dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA) : Ethoxylated Alcohol ; C-21 dibasic fatty acid, potassium salt
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: Non-applicable
   New York RTK - Substance list: Non-applicable
   Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
   CANADA-Domestic Substances List (DSL): Ethoxylated Alcohol ; C-21 dibasic fatty acid, potassium salt
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Non-applicable
   Rhode Island - Hazardous substances RTK: Non-applicable
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable
   Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
   circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
   product.
   Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
   This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
   H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
   The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the
   individual components which appear in section 3

29 CFR 1910.1200:
SECTION 16: OTHER INFORMATION (continued)

| Acute Tox. 4: H302 - Harmful if swallowed |
| Eye Dam. 1: H318 - Causes serious eye damage |
| Eye Irrit. 2: H319 - Causes serious eye irritation |
| Eye Irrit. 2B: H320 - Causes eye irritation |
| Skin Irrit. 2: H315 - Causes skin irritation |
| STOT SE 3: H335 - May cause respiratory irritation |

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF107 - Blend 107 Performix

1.2 Recommended use of the chemical and restrictions on use:

    Relevant uses: Chemical cleaning products

    Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

    Cleaning Systems, Inc.
    1997 American Blvd
    54115 De Pere - United States
    Phone.: 9203372175 - Fax: 9203379410
    chemcompliance@cleaningsystemsinc.com
    http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

    29 CFR 1910.1200:
    Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
    Eye Dam. 1: Serious eye damage, Category 1, H318
    Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:

    29 CFR 1910.1200:
    Danger

    Hazard statements:
    Eye Dam. 1: H318 - Causes serious eye damage
    Skin Irrit. 2: H315 - Causes skin irritation

    Precautionary statements:
    P264: Wash thoroughly after use
    P280: Wear protective gloves/protective clothing/eye protection/face protection
    P302+P352: IF ON SKIN: Wash with plenty of soap and water
    P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Continue rinsing
    P310: Immediately call a poison center/doctor
    P332+P333: If skin irritation occurs: Get medical advice/attention

    Substances that contribute to the classification
    Ethoxylated Alcohol; Quaternary Ammonium Compounds

    Acute Toxicity Estimate (ATE mix):
    43.31 % (oral), 53.81 % (dermal), 53.81 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:

    Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

    Non-applicable

3.2 Mixtures:

    - CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 127087-87-0</td>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>5 - &lt;10 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
**SECTION 5: FIRE-FIGHTING MEASURES (continued)**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 **Special protective equipment and precautions for fire-fighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

**Additional provisions:**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

6.1 **Personal precautions, protective equipment and emergency procedures:**

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 **Environmental precautions:**

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 **Methods and materials for containment and cleaning up:**

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 **Reference to other sections:**

See sections 8 and 13.

**SECTION 7: HANDLING AND STORAGE**

7.1 **Precautions for safe handling:**

A.- **Precautions for safe manipulation**

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- **Technical recommendations for the prevention of fires and explosions**

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- **Technical recommendations to prevent ergonomic and toxicological risks**

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- **Technical recommendations to prevent environmental risks**

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 **Conditions for safe storage, including any incompatibilities:**

A.- **Technical measures for storage**

- Minimum Temp.: -4 °F
- Maximum Temp.: 120 °F

B.- **General conditions for storage**

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 **Specific end use(s):**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td>8-hour TWA PEL 1 mg/m³</td>
</tr>
<tr>
<td>CAS: 7664-38-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 ºF: Liquid
Appearance: Colorless
Color: Not available
Odor: Not available
Odour threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: 229 ºF
Vapour pressure at 68 ºF: 2264 Pa
Vapour pressure at 122 ºF: 89.53 (11.94 kPa)
Evaporation rate at 68 ºF: Non-applicable *

Product description:
Density at 68 ºF: 1015.5 kg/m³
Relative density at 68 ºF: 1.016
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *

pH: 2.5 at 100 %
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface tension at 68 °F</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Precaution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Contact with air</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Increase in temperature</td>
<td>Precaution</td>
</tr>
<tr>
<td>Sunlight</td>
<td>Precaution</td>
</tr>
<tr>
<td>Humidity</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Material</th>
<th>Compatibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acids</td>
<td>Avoid strong acids</td>
</tr>
<tr>
<td>Water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Oxidising materials</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Combustible materials</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Others</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Produces skin inflammation.
   - Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral</td>
<td>1414 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal</td>
<td>1060 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>11 mg/L (4 h)</td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds CAS: Proprietary</td>
<td>LD50 oral</td>
<td>3000 mg/kg</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th></th>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>9006.7 mg/kg (Calculation method)</td>
<td>43.31 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>5501.28 mg/kg (Calculation method)</td>
<td>53.81 %</td>
</tr>
<tr>
<td>Inhalation</td>
<td>57.09 mg/L (4 h) (Calculation method)</td>
<td>53.81 %</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION
The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LC50</td>
<td>1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>911 mg/L (72 h)</td>
<td>Pseudokirchmeriella subcapitata</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>BOD&lt;sub&gt;S&lt;/sub&gt; 0.71 g O&lt;sub&gt;2&lt;/sub&gt;/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD 2.2 g O&lt;sub&gt;2&lt;/sub&gt;/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD&lt;sub&gt;S&lt;/sub&gt;/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>BCF</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
<td></td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 4</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Henry 1.621E-1 Pa·m³/mol</td>
<td>1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Limited quantities of miscellaneous hazardous materials in Packing Group III are excepted from labeling requirements not over 5.0 L (1.3 gallons) net capacity each for liquids unless transported by aircraft.

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN3082
14.2 UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4-Nonylphenol, branched, ethoxylated)
14.3 Transport hazard class(es): 9
14.4 Packing group, if applicable: III
14.5 Environmental hazard: Yes
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Limited quantity exemption under inner packaging not over 1.3 gallons packed in a strong outer packaging.

Transport of dangerous goods by sea:
SECTION 14: TRANSPORT INFORMATION (continued)

With regard to IMDG 38-16:

14.1 UN number: UN3082
14.2 UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4-Nonylphenol, branched, ethoxylated)
14.3 Transport hazard class(es): 9
Labels: 9
14.4 Packing group, if applicable: III
14.5 Environmental hazard: Yes
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Limited quantity exemption under inner packaging not over 1.3 gallons packed in a strong outer packaging.

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: UN3082
14.2 UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4-Nonylphenol, branched, ethoxylated)
14.3 Transport hazard class(es): 9
Labels: 9
14.4 Packing group, if applicable: III
14.5 Environmental hazard: Yes
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Limited quantity exemption under inner packaging not over 1.3 gallons packed in a strong outer packaging.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): 4-Nonylphenol, branched, ethoxylated; Ethoxylated Alcohol; Quaternary Ammonium Compounds; 2-butoxyethanol
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): 4-Nonylphenol, branched, ethoxylated; Ethoxylated Alcohol; Quaternary Ammonium Compounds; 2-butoxyethanol
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.
SECTION 15: REGULATORY INFORMATION (continued)

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
1.1 GHS Product identifier: UF200 - Low pH Presoak 200

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products

Low pH liquid detergent mixture for commercial car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302

Acute Tox. 4: Acute inhalation toxicity, Category 4, H332

Eye Dam. 1: Serious eye damage, Category 1, H318

Skin Corr. 1B: Skin corrosion, Category 1B, H314

2.2 Label elements:

29 CFR 1910.1200:

Danger

Hazard statements:

Acute Tox. 4: H302 - Harmful if swallowed

Acute Tox. 4: H332 - Harmful if inhaled

Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

Precautionary statements:

P271: Use only outdoors or in a well-ventilated area

P280: Wear protective gloves/protective clothing/eye protection/face protection

P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310: Immediately call a poison center/doctor

P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification

Glycollic acid; 2-butoxyethanol; Alkylbenzyl Sodium Sulfonate; Ethoxylated Alcohol

Acute Toxicity Estimate (ATE mix):

22.08 % (oral), 59.79 % (dermal), 35.92 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:

Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products
Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 79-14-1</td>
<td>Glycollic acid</td>
<td>Acute Tox. 4: H332; Eye Dam. 1: H318; Skin Corr. 1B: H314 - Danger</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: 112-34-5</td>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>Eye Irrit. 2: H319; Flam. Liq. 4: H227 - Warning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Alkyl Imino dipropionic Acid, Monosodium Salt</td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By inhalation:
Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
SECTION 7: HANDLING AND STORAGE (continued)

Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL: 50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL: 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections. Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Liquid
Appearance: Transparent
Color: Reddish
Odor: Not available
Odor threshold: Non-applicable *

Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability:</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>Non Flammable (&gt;199.4 ºF)</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Autoignition temperature:</td>
<td>400 ºF</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Explosive:</td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Upper explosive limit:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>9.2 Other information:</td>
<td></td>
</tr>
<tr>
<td>Surface tension at 68 ºF:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Refraction index:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>*Not relevant due to the nature of the product, not providing information property of its hazards.</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Contact with air</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Increase in temperature</td>
<td>Precaution</td>
</tr>
<tr>
<td>Sunlight</td>
<td>Precaution</td>
</tr>
<tr>
<td>Humidity</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Incompatible Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acids</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Oxidising materials</td>
<td>Precaution</td>
</tr>
<tr>
<td>Combustible materials</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Others</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):

- Acute toxicity: Exposure in high concentration can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3); E-caprolactam (4)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Alkyl Imino dipropionic Acid, Monosodium Salt</td>
<td>LD50 oral 31500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>LD50 oral 2040 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h) (ATEi)</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2592.05 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>3145.89 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>18.84 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid CAS: 79-14-1</td>
<td>LC50 164 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 141 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 44 mg/L (72 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>2-(2-butoxyethoxy)ethanol CAS: 112-34-5</td>
<td>LC50 1300 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 2850 mg/L (24 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 53 mg/L (192 h)</td>
<td>Microcystis aeruginosa</td>
<td>Algae</td>
</tr>
<tr>
<td>Alkyl Imino dipropionic Acid, Monosodium Salt CAS: Proprietary</td>
<td>LC50 14.2 mg/L (96 h)</td>
<td>Oncorhynchus mykiss</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 5.7 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 31 mg/L (72 h)</td>
<td>Chlorella vulgaris</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid CAS: 79-14-1</td>
<td>BODS Non-applicable</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD Non-applicable</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD Non-applicable</td>
<td>% Biodegradable 86 %</td>
</tr>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>BODS 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
<tr>
<td>2-(2-butoxyethoxy)ethanol CAS: 112-34-5</td>
<td>BODS 0.25 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD 2.08 g O2/g</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD 0.12</td>
<td>% Biodegradable 92 %</td>
</tr>
<tr>
<td>Alkyl Imino dipropionic Acid, Monosodium Salt CAS: Proprietary</td>
<td>BODS Non-applicable</td>
<td>Concentration 10 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD Non-applicable</td>
<td>% Biodegradable 95 %</td>
</tr>
</tbody>
</table>
**SECTION 12: ECOLOGICAL INFORMATION (continued)**

### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2-butoxyethanol</strong> CAS: 111-76-2</td>
<td>Koc: 4</td>
<td>Henry: 1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion: Very High</td>
<td>Dry soil: No</td>
</tr>
<tr>
<td></td>
<td>Surface tension: 2.729E-2 N/m (77 °F)</td>
<td>Moist soil: Yes</td>
</tr>
<tr>
<td><strong>2-(2-butoxyethoxy)ethanol</strong> CAS: 112-34-5</td>
<td>Koc: 48</td>
<td>Henry: 7.2E-9 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion: Very High</td>
<td>Dry soil: No</td>
</tr>
<tr>
<td></td>
<td>Surface tension: 3.395E-2 N/m (77 °F)</td>
<td>Moist soil: No</td>
</tr>
</tbody>
</table>

### 12.5 Results of PBT and vPvB assessment:
Non-applicable

### 12.6 Other adverse effects:
Not described

**SECTION 13: DISPOSAL CONSIDERATIONS**

### 13.1 Disposal methods:

#### Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

#### Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

**SECTION 14: TRANSPORT INFORMATION**

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:

1. **UN number:** UN3265
2. **UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glycollic acid)
3. **Transport hazard class(es):** 8
4. **Labels:** 8
5. **Packing group, if applicable:** II
6. **Environmental hazard:** No
7. **Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**
   - Physico-Chemical properties: see section 9
8. **Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN3265
14.2 UN proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glycollic acid)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

14.1 UN number: UN3265
14.2 UN proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glycollic acid)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol; 2-(2-butoxyethoxy)ethanol
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
- The Toxic Substances Control Act (TSCA): Glycollic acid; 2-butoxyethanol; Alkylbenzyl Sodium Sulfonate; 2-(2-butoxyethoxy)ethanol; Ethoxylated Alcohol; Alkyl Imino dipropionic Acid, Monosodium Salt
- Massachusetts RTK - Substance List: Non-applicable
- New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
- New York RTK - Substance list: 2-butoxyethanol
- Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
- CANADA-Domestic Substances List (DSL): Glycollic acid; 2-butoxyethanol; Alkylbenzyl Sodium Sulfonate; 2-(2-butoxyethoxy)ethanol; Ethoxylated Alcohol; Alkyl Imino dipropionic Acid, Monosodium Salt
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: 2-butoxyethanol
- Rhode Island - Hazardous substances RTK: 2-butoxyethanol
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
### SECTION 15: REGULATORY INFORMATION (continued)

**The Toxic Substances Control Act (TSCA)**  
**Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)**

### SECTION 16: OTHER INFORMATION

**Legislation related to safety data sheets:**  
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

**Texts of the legislative phrases mentioned in section 2:**
- H314: Causes severe skin burns and eye damage  
- H318: Causes serious eye damage  
- H302: Harmful if swallowed  
- H332: Harmful if inhaled

**Texts of the legislative phrases mentioned in section 3:**
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**29 CFR 1910.1200:**
- Acute Tox. 4: H302 - Harmful if swallowed  
- Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled  
- Acute Tox. 4: H332 - Harmful if inhaled  
- Eye Dam. 1: H318 - Causes serious eye damage  
- Eye Irrit. 2: H319 - Causes serious eye irritation  
- Flam. Liq. 4: H227 - Combustible liquid  
- Skin Corr. 1B: H314 - Causes severe skin burns and eye damage  
- Skin Irrit. 2: H315 - Causes skin irritation  
- STOT SE 3: H335 - May cause respiratory irritation

**Advice related to training:**
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**
Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**
- IMDG: International maritime dangerous goods code  
- IATA: International Air Transport Association  
- ICAO: International Civil Aviation Organisation  
- COD: Chemical Oxygen Demand  
- BOD5: 5-day biochemical oxygen demand  
- BCF: Bioconcentration factor  
- LD50: Lethal Dose 50  
- LC50: Lethal Concentration 50  
- EC50: Effective concentration 50  
- Log-POW: Octanol-water partition coefficient  
- Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, it is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).

END OF SAFETY DATA SHEET
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF201 - Low pH Presoak 201

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Low pH liquid detergent mixture for commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1B: Skin corrosion, Category 1B, H314

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P335: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor

Substances that contribute to the classification
Alkyl Polyglycoside; Glycolic acid; Alkyl Glycoside; L-(+)-lactic acid

Acute Toxicity Estimate (ATE mix):
47.13 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkyl Polyglycoside</td>
<td>Eye Dam. 1: H318 - Danger 15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>Glycollic acid</td>
<td>Acute Tox. 4: H332; Eye Dam. 1: H318; Skin Corr. 1B: H314 - Danger 10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Alkyl Glycoside</td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger 5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 79-33-4</td>
<td>L- (+)-lactic acid</td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger 5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 7681-38-1</td>
<td>Sodium hydrogenasulphate</td>
<td>Eye Dam. 1: H318 - Danger &lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)
Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.
B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
SECTION 7: HANDLING AND STORAGE (continued)

Maximum Temp.: 120 °F

B. - General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace
There are no occupational exposure limits for the substances contained in the product

8.2 Appropriate engineering controls:
A. - Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eyewash stations</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 **Information on basic physical and chemical properties:**

For complete information see the product datasheet.

**Appearance:**

- Physical state at 68 °F: Liquid
- Appearance: Opaque
- Color: Greenish
- Odor: Not available
- Odour threshold: Non-applicable *

**Volvatility:**

- Boiling point at atmospheric pressure: 212 °F
- Vapour pressure at 68 °F: 2350 Pa
- Vapour pressure at 122 °F: 92.87 (12.38 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**

- Density at 68 °F: 1119 kg/m³
- Relative density at 68 °F: 1.119
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 2 - 3 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**

- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 707 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
   - Contact with the eyes: Produces serious eye damage after contact.

- CONTINUED ON NEXT PAGE -
D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydrogen sulphate</td>
<td>LD50 oral 2490 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 7681-38-1</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Glycollic acid</td>
<td>LD50 oral 2040 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h) (ATEi)</td>
<td></td>
</tr>
<tr>
<td>L-(+)-lactic acid</td>
<td>LD50 oral 3750 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 79-33-4</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Alkyl Glycoside</td>
<td>LD50 oral 5500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>51.67 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Polyglycoside</td>
<td>LC50 126 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 151 mg/L (48 h)</td>
<td>Acratia tonsa</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 27 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
<tr>
<td>Glycollic acid</td>
<td>LC50 164 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>EC50 141 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 44 mg/L (72 h)</td>
<td>Scenedesmus capricornum</td>
<td>Algae</td>
</tr>
<tr>
<td>Alkyl Glycoside</td>
<td>LC50 2.95 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 14 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 12 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
<tr>
<td>L-(+)-lactic acid</td>
<td>LC50 320 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 79-33-4</td>
<td>EC50 240 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 3.5 mg/L (72 h)</td>
<td>Scenedesmus capricornum</td>
<td>Algae</td>
</tr>
<tr>
<td>Sodium hydrogensulphate</td>
<td>LC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 7681-38-1</td>
<td>EC50 190 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Polyglycoside</td>
<td>BOD5 Non-applicable</td>
<td>Concentration Non-applicable</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 100 %</td>
</tr>
<tr>
<td>Glycollic acid</td>
<td>BOD5 Non-applicable</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>COD Non-applicable</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 86 %</td>
</tr>
<tr>
<td>Alkyl Glycoside</td>
<td>BOD5 Non-applicable</td>
<td>Concentration 2 mg/L</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 86 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>BCF Pow Log Potential</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>3 -1.11 Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Polyglycoside</td>
<td>Koc 50 Henry</td>
<td>1.2E-8 Pa m³/mol</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Conclusion Very High Dry soil</td>
<td>No</td>
</tr>
<tr>
<td>Surface tension Non-applicable Moist soil</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Alkyl Glycoside</td>
<td>Koc 50 Henry</td>
<td>2E-8 Pa m³/mol</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Conclusion Very High Dry soil</td>
<td>No</td>
</tr>
<tr>
<td>Surface tension Non-applicable Moist soil</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
**SECTION 13: DISPOSAL CONSIDERATIONS (continued)**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

---

**SECTION 14: TRANSPORT INFORMATION**

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA) : Alkyl Polyglycoside ; Glycolic acid ; Alkyl Glycoside ; L-(+)-lactic acid ; Sodium
   hydrogensulphate
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: Non-applicable
   New York RTK - Substance list: Sodium hydrogensulphate
   Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
   CANADA-Domestic Substances List (DSL): Alkyl Polyglycoside ; Glycolic acid ; Alkyl Glycoside ; L-(+)-lactic acid ; Sodium
   hydrogensulphate
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Non-applicable
   Rhode Island - Hazardous substances RTK: Non-applicable
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage
H314: Causes severe skin burns and eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the
individual components which appear in section 3

29 CFR 1910.1200:

- CONTINUED ON NEXT PAGE -
Acute Tox. 4: H332 - Harmful if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
## SECTION 1: IDENTIFICATION

1.1 **GHS Product identifier:** UF205 - Low pH Presoak 205

1.2 **Recommended use of the chemical and restrictions on use:**

- Relevant uses: Chemical cleaning products
- Liquid low pH detergent for use in commercial car washes.
- Uses advised against: All uses not specified in this section or in section 7.3

1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

## SECTION 2: HAZARD(S) IDENTIFICATION

2.1 **Classification of the substance or mixture:**

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

- **Acute Tox. 4:** Acute toxicity if swallowed, Category 4, H302
- **Eye Dam. 1:** Serious eye damage, Category 1, H318
- **Skin Corr. 1A:** Skin corrosion, Category 1A, H314

2.2 **Label elements:**

29 CFR 1910.1200:

- **Danger**

- **Hazard statements:**
  - Acute Tox. 4: H302 - Harmful if swallowed
  - Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

- **Precautionary statements:**
  - P264: Wash thoroughly after use
  - P280: Wear protective gloves/protective clothing/eye protection/face protection
  - P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
  - P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
  - P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
  - P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
  - P310: Immediately call a poison center/doctor
  - P501: Dispose of contents and/or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

- **Substances that contribute to the classification**
  - Surfactant Mixture; Ethoxylated Alcohol; Sodium hydrogensulphate; 2-butoxyethanol

- **Acute Toxicity Estimate (ATE mix):**
  - 37.3 % (oral), 54.65 % (dermal), 62.9 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

- **Other hazards which do not result in classification:**
  - Non-applicable

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Surfactant Mixture</td>
<td>Acute Tox. 4: H302+H332; Eye Dam. 1: H318; Skin Corr. 1A: H314 - Danger</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: 7681-38-1</td>
<td>Sodium hydrogensulphate</td>
<td>Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Ethanediol</td>
<td>Acute Tox. 4: H302 - Warning</td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>Methanesulphonic acid</td>
<td>Acute Tox. 4: H302+H312; Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable
SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)
Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.
B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage

- CONTINUED ON NEXT PAGE -
### SECTION 7: HANDLING AND STORAGE (continued)

**Minimum Temp.:** -4 ºF  
**Maximum Temp.:** 120 ºF

**B.** General conditions for storage  
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

**7.3 Specific end use(s):**  
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1 Control parameters:**  
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm 240 mg/m³</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

**8.2 Appropriate engineering controls:**

**A.** Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

**B.** Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

**C.** Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

**D.** Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

**E.** Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

- Physical state at 68 °F: Liquid
- Appearance: Semitransparent
- Color: Orange
- Odor: Not available
- Odour threshold: Non-applicable *

Volatile:

- Boiling point at atmospheric pressure: 232 °F
- Vapour pressure at 68 °F: 2216 Pa
- Vapour pressure at 122 °F: 87.61 (11.68 kPa)
- Evaporation rate at 68 °F: Non-applicable *

Product description:

- Density at 68 °F: 1060.2 kg/m³
- Relative density at 68 °F: 1.06
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: <1 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Flammability:
Flash Point:       Non Flammable (>199.4 °F)
Flammability (solid, gas):  Non-applicable *
Autoignition temperature:     239 ºF
Lower flammability limit:   Non-applicable *
Upper flammability limit:   Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 ºF:  Non-applicable *
Refraction index:       Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available
Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:
A- Ingestion (acute effect):
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
  Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
  Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/l (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Ethanediol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 9530 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Methanesulphonic acid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>LD50 oral 1157 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1000 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethoxylated Alcohol</td>
<td>LD50 oral: 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal: Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation: Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Sodium hydrogensulphate</td>
<td>LD50 oral: 2420 mg/kg (Rat)</td>
<td></td>
</tr>
<tr>
<td>CAS: 7681-38-1</td>
<td>LD50 dermal: Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation: Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1875.92 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>5672.09 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>90.69 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

#### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydrogensulphate</td>
<td>LC50: Non-applicable</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>CAS: 7681-38-1</td>
<td>EC50: 190 mg/L (48 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50: Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50: 1490 mg/L (96 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50: 1815 mg/L (48 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td></td>
<td>EC50: 911 mg/L (72 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethanediol</td>
<td>LC50: 53000 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>EC50: 51000 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50: 24000 mg/L (168 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
<tr>
<td>Methanesulphonic acid</td>
<td>LC50: 73 mg/L (96 h)</td>
<td>Oncorhynchus mykiss</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>EC50: 50 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50: 26 mg/L (96 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Acute toxicity</th>
<th>Biodegradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BODS: 0.71 g O2/g</td>
<td>Concentration</td>
<td>100 mg/L</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD: 2.2 g O2/g</td>
<td>Period</td>
<td>14 days</td>
<td>96 %</td>
</tr>
<tr>
<td></td>
<td>BODS/COD: 0.32</td>
<td>% Biodegradable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethanediol</td>
<td>BODS: 0.47 g O2/g</td>
<td>Concentration</td>
<td>100 mg/L</td>
<td></td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>COD: 1.29 g O2/g</td>
<td>Period</td>
<td>14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BODS/COD: 0.36</td>
<td>% Biodegradable</td>
<td></td>
<td>90 %</td>
</tr>
<tr>
<td>Methanesulphonic acid</td>
<td>BODS: Non-applicable</td>
<td>Concentration</td>
<td>161 mg/L</td>
<td></td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>COD: Non-applicable</td>
<td>Period</td>
<td>28 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BODS/COD: Non-applicable</td>
<td>% Biodegradable</td>
<td>100 %</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF: 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log: 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential: Low</td>
</tr>
</tbody>
</table>

| Ethanediol                         | BCF: 10                   |
| CAS: 107-21-1                      | Pow Log: -1.36            |
|                                    | Potential: Low            |

#### 12.4 Mobility in soil:

- CONTINUED ON NEXT PAGE -
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc: 8</td>
<td>Henry: 1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion: Very High</td>
<td>Dry soil: No</td>
</tr>
<tr>
<td></td>
<td>Surface tension: 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil: Yes</td>
</tr>
<tr>
<td>Ethanediol</td>
<td>Koc: 0</td>
<td>Henry: 1.32E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Conclusion: Very High</td>
<td>Dry soil: No</td>
</tr>
<tr>
<td></td>
<td>Surface tension: 4.98E-2 N/m (77 ºF)</td>
<td>Moist soil: No</td>
</tr>
<tr>
<td>Methanesulphonic acid</td>
<td>Koc: 1</td>
<td>Henry: 1.28E-3 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>Conclusion: Very High</td>
<td>Dry soil: No</td>
</tr>
<tr>
<td></td>
<td>Surface tension: 0E+0 N/m (-459.67 ºF)</td>
<td>Moist soil: No</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN3265
14.2 UN proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methanesulphonic acid)
14.3 Transport hazard class(es): 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN3265
14.2 UN proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methanesulphonic acid)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: UN3265
14.2 UN proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methanesulphonic acid)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol; Ethanediol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Ethanediol
   The Toxic Substances Control Act (TSCA): Ethoxylated Alcohol; Sodium hydrogensulphate; 2-butoxyethanol; Ethanediol; Methanesulphonic acid
   Massachusetts RTK - Substance List: Ethanediol
   New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol; Ethanediol; Methanesulphonic acid
   New York RTK - Substance list: Sodium hydrogensulphate; 2-butoxyethanol; Ethanediol; Methanesulphonic acid
   Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol; Ethanediol
   CANADA-Domestic Substances List (DSL): Ethoxylated Alcohol; Sodium hydrogensulphate; 2-butoxyethanol; Ethanediol; Methanesulphonic acid
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: 2-butoxyethanol; Ethanediol
   Rhode Island - Hazardous substances RTK: 2-butoxyethanol; Ethanediol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Ethanediol (5000 pounds)

Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
SECTION 15: REGULATORY INFORMATION (continued)

The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H302: Harmful if swallowed

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Met. Corr. 1: H290 - May be corrosive to metals
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 **GHS Product identifier:** UF210 - General Cleaner 210

1.2 **Recommended use of the chemical and restrictions on use:**

Relevant uses: Chemical cleaning products

Liquid detergent mixture for commercial car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**

Cleaning Systems, Inc.

1997 American Blvd

54115 De Pere - United States

Phone.: 9203372175 - Fax: 9203379410

chemcompliance@cleaningsystemsinc.com

http://cleaningsystemsinc.com

1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 **Classification of the substance or mixture:**

29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302

Eye Dam. 1: Serious eye damage, Category 1, H318

Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 **Label elements:**

29 CFR 1910.1200:

Danger

Hazard statements:

Acute Tox. 4: H302 - Harmful if swallowed
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:

P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P333: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification

Ethoxylated Alcohol; Ethanediol; Tetrasodium ethylenediaminetetraacetate; Quaternary Ammonium Compounds

Additional labeling:

Keep out of the reach of children

2.3 **Other hazards which do not result in classification:**

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Ethanediol</td>
<td>Acute Tox. 4: H302 - Warning</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>Eye Dam. 1: H318 - Danger</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By Inhalation:
This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use full jet water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 ºF

CONTINUED ON NEXT PAGE -
### SECTION 7: HANDLING AND STORAGE (continued)

<table>
<thead>
<tr>
<th>B. - General conditions for storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5</td>
</tr>
</tbody>
</table>

#### 7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Substance</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

#### 8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mandatory hand protection</strong></td>
<td><strong>Protective gloves against minor risks</strong></td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mandatory face protection</strong></td>
<td><strong>Panoramic glasses against splash/projections.</strong></td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Work clothing</strong></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td><strong>Anti-slip work shoes</strong></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

**National volatile organic compound emission standards (40 CFR Part 59):**
- V.O.C. (Subpart C - Consumer): 17 % weight
- V.O.C. (Coatings) at 68 °F: 182.29 kg/m³ (182.29 g/L)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Yellowish
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 240 °F
- Vapour pressure at 68 °F: 2122 Pa
- Vapour pressure at 122 °F: 11183.15 Pa (11.18 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1072.3 kg/m³
- Relative density at 68 °F: 1.072
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 12.4
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non-applicable*</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>752 °F</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>Non-applicable*</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>Non-applicable*</td>
</tr>
<tr>
<td><strong>Explosive:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>Non-applicable*</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>Non-applicable*</td>
</tr>
<tr>
<td><strong>9.2 Other information:</strong></td>
<td></td>
</tr>
<tr>
<td>Surface tension at 68 °F</td>
<td>Non-applicable*</td>
</tr>
<tr>
<td>Refraction index</td>
<td>Non-applicable*</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th></th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Category</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid</td>
<td>Strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethaneol</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>LD50 dermal 9530 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LD50 oral 3000 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Ethoxylated Alcohol</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1121.06 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;=5000 mg/kg (Calculation method)</td>
</tr>
</tbody>
</table>
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Inhalation</th>
<th>&gt;20 mg/L (4 h) (Calculation method)</th>
<th>Non-applicable</th>
</tr>
</thead>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>LC50 53000 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>EC50 51000 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 24000 mg/L (168 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>BOD5 0.47 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>COD 1.29 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.36</td>
<td>% Biodegradable 90 %</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BOD5 0.47 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>COD 1.29 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.36</td>
<td>% Biodegradable 90 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>Pow Log -1.36 Potential Low</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Pow Log -13 Potential Low</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td></td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>Koc 0</td>
<td>Henry 1.32E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 4.989E-2 N/m (77 °F)</td>
<td>Moist soil No</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE
SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Ethanediol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Ethanediol
The Toxic Substances Control Act (TSCA) : Ethoxylated Alcohol ; Ethanediol ; Tetrasodium ethylenediaminetetraacetate ;
Quaternary Ammonium Compounds
Massachusetts RTK - Substance List: Ethanediol
New Jersey Worker and Community Right-to-Know Act: Ethanediol
New York RTK - Substance list: Ethanediol
Pennsylvania Worker and Community Right-to-Know Law: Ethanediol
CANADA-Domestic Substances List (DSL): Ethoxylated Alcohol ; Ethanediol ; Tetrasodium ethylenediaminetetraacetate ;
Quaternary Ammonium Compounds
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Ethanediol
Rhode Island - Hazardous substances RTK: Ethanediol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Ethanediol (5000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage
H302: Harmful if swallowed
H314: Causes severe skin burns and eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the
individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension
and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Date of compilation: 3/6/2019            Version: 1
Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF215 - Low pH Presoak with Salt Halt® 215

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products

Liquid acidic cleaner for use as a cleaner in commercial car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Eye Dam. 1: Serious eye damage, Category 1, H318
Met. Corr. 1: Corrosive to metals, Category 1, H290
Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:

29 CFR 1910.1200:

Danger

Hazard statements:

Acute Tox. 4: H302 - Harmful if swallowed
Met. Corr. 1: H290 - May be corrosive to metals
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:

P234: Keep only in original container
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification

Surfactant Mixture ; Methanesulphonic acid; Ethaenedioli; Sodium hydrogen sulphate

Acute Toxicity Estimate (ATE mix):

30.5 % (oral), 38.5 % (dermal) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:

Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Surfactant Mixture</td>
<td>Acute Tox. 4: H302+H332; Eye Dam. 1: H318; Skin Corr. 1A: H314 - Danger</td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>Methanesulphonic acid</td>
<td>Acute Tox. 4: H302+H312; Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Ethanolol</td>
<td>Acute Tox. 4: H302 - Warning</td>
</tr>
<tr>
<td>CAS: 7681-38-1</td>
<td>Sodium hydrogen sulphate</td>
<td>Eye Dam. 1: H318 - Danger</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
**SECTION 7: HANDLING AND STORAGE (continued)**

<table>
<thead>
<tr>
<th>Maximum Temp.</th>
<th>120 °F</th>
</tr>
</thead>
</table>

B. - General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 **Specific end use(s):**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 **Control parameters:**

Substances whose occupational exposure limits have to be monitored in the workplace

There are no occupational exposure limits for the substances contained in the product

8.2 **Appropriate engineering controls:**

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Hand]</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Face]</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 **Information on basic physical and chemical properties:**

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Brown
- Odor: Not available
- Odour threshold: Non-applicable *

**Volutility:**
- Boiling point at atmospheric pressure: 233 °F
- Vapour pressure at 68 °F: 2177 Pa
- Vapour pressure at 122 °F: 86.06 (11.47 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1103 kg/m³
- Relative density at 68 °F: 1.103
- Dynamic viscosity at 68 °F: 3 cP
- Kinematic viscosity at 68 °F: 2.72 cSt
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: <1 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 239 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Not applicable
Not applicable
Not applicable
Not applicable

10.5 Incompatible materials:
- Acids
- Water
- Oxidising materials
- Combustible materials
- Others

Not applicable
Not applicable
Precaution
Not applicable
Avoid alkalis or strong bases

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available
Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
  - Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
  - Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
  - Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
  - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>LD50 dermal 9530 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Methanesulphonic acid</td>
<td>LD50 oral 1157 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>LD50 dermal 1000 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Sodium hydrosulphate</td>
<td>LD50 oral 2490 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 7681-38-1</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2108.32 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>4100 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
### SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanesulphonic acid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>LC50 73 mg/L (96 h)</td>
<td>Oncorhynchus mykiss</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 50 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 26 mg/L (96 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
<tr>
<td>Ethanediol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>LC50 53000 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 51000 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 24000 mg/L (168 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
<tr>
<td>Sodium hydrogensulphate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 7681-38-1</td>
<td>LC50 Non-applicable</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 190 mg/L (48 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanesulphonic acid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>BOD5 Non-applicable</td>
<td>Concentration 161 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD Non-applicable</td>
<td>% Biodegradable 100 %</td>
</tr>
<tr>
<td>Ethanediol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>BOD5 0.47 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD 1.29 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD 0.36</td>
<td>% Biodegradable 90 %</td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td></td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>BCF 10</td>
</tr>
<tr>
<td></td>
<td>Pow Log -1.36</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

#### 12.4 Mobility in soil:

| Identification                  | Absorption/desorption | Volatility |
|---------------------------------|                       |            |
| Methanesulphonic acid           |                        |            |
| CAS: 75-75-2                    | Koc 1                  | Henry 1.28E-3 Pa m³/mol |
|                                 | Conclusion Very High   | Dry soil No |
|                                 | Surface tension 9E+0 N/m (-459.67 ºF) | Moist soil No |
| Ethanediol                      | Koc 0                  | Henry 1.327E-1 Pa m³/mol |
| CAS: 107-21-1                   | Conclusion Very High   | Dry soil No |
|                                 | Surface tension 4.968E-2 N/m (77 ºF) | Moist soil No |

#### 12.5 Results of PBT and vPvB assessment:

Non-applicable

#### 12.6 Other adverse effects:

Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

### SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

- CONTINUED ON NEXT PAGE -
## SECTION 14: TRANSPORT INFORMATION (continued)

With regard to 49 CFR on the Transport of Dangerous Goods:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number:</td>
<td>UN3265</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methanesulphonic acid)</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by sea:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number:</td>
<td>UN3265</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methanesulphonic acid)</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number:</td>
<td>UN3265</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methanesulphonic acid)</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

## SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Ethanediol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Ethanediol
The Toxic Substances Control Act (TSCA): Methanesulphonic acid; Ethanediol; Sodium hydrogensulphate
Massachusetts RTK - Substance List: Ethanediol
New Jersey Worker and Community Right-to-Know Act: Methanesulphonic acid; Ethanediol
New York RTK - Substance List: Methanesulphonic acid; Ethanediol; Sodium hydrogensulphate
Pennsylvania Worker and Community Right-to-Know Law: Ethanediol
CANADA-Domestic Substances List (DSL): Methanesulphonic acid; Ethanediol; Sodium hydrogensulphate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Ethanediol
Rhode Island - Hazardous substances RTK: Ethanediol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Ethanediol (5000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H290: May be corrosive to metals
H318: Causes serious eye damage
H302: Harmful if swallowed
H314: Causes severe skin burns and eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin
Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Met. Corr. 1: H290 - May be corrosive to metals
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:

- CONTINUED ON NEXT PAGE -
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF222 - Ultra Presoak 222

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Liquid Detergent Mixture for commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1A: Skin corrosion, Category 1A, H314
Skin Sens. 1: Sensitisation, skin, Category 1, H317
STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Sens. 1: H317 - May cause an allergic skin reaction
STOT SE 3: H335 - May cause respiratory irritation

Precautionary statements:
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P403+P233: Store in a well-ventilated place. Keep container tightly closed
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Surfactant Mixture; Ethanediol; 2-aminoethanol; Tetrasodium ethylenediaminetetraacetate

Acute Toxicity Estimate (ATE mix):
28.78 % (oral), 33.49 % (dermal), 41.76 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances: 
Non-applicable

3.2 Mixtures: 
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture</td>
<td>Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Ethanediol</td>
<td>Acute Tox. 4: H302 - Warning</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>2-aminoethanol</td>
<td>Acute Tox. 4: H302; Flamm. Liq. 4: H227; Skin Corr. 1B: H314 - Danger</td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>Skin Corr. 1A: H314 - Danger</td>
</tr>
<tr>
<td>CAS: 5089-27-5</td>
<td>d-limonene</td>
<td>Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Warning</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By Inhalation:
Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By Skin Contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By Eye Contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By Ingestion/Aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable
## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

### 5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

### 5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spill product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

### 6.2 Environmental precautions:

The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

### 6.3 Methods and materials for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

### 6.4 Reference to other sections:

See sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling:

#### A. Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

#### B. Technical recommendations for the prevention of fires and explosions

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for conditions and materials that should be avoided.

#### C. Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

#### D. Technical recommendations to prevent environmental risks

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**Date of compilation: 6/3/2019**

**Version: 1**

**Page 3/12**
SECTION 7: HANDLING AND STORAGE (continued)

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A. Technical measures for storage
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F

B. General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>8-hour TWA PEL 3 ppm</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

If product is used at the concentration dosing conditions specified in the relevant instructions for use (section 15), personal protective equipment described in section 8.2 for UNDILUTED products will not be required.

Safe handling recommendations for undiluted product:

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

- Mandatory hand protection
  Protective gloves against minor risks
  Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

- Mandatory face protection
  Panoramic glasses against splash/projections.
  Clean daily and disinfect periodically according to the manufacturer’s instructions. Use this PPE if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work</td>
<td>Replace before any</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>clothing</td>
<td>evidence of deterioration.</td>
<td></td>
</tr>
<tr>
<td>Anti-slip</td>
<td>Replace before any</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>work shoes</td>
<td>evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Brown
- Odor: Citric
- Odor threshold: Non-applicable *

Volatility:
- Boiling point at atmospheric pressure: 233 °F
- Vapour pressure at 68 °F: 2166 Pa
- Vapour pressure at 122 °F: 85.67 (11.42 kPa)
- Evaporation rate at 68 °F: Non-applicable *

Product description:
- Density at 68 °F: 1075.6 kg/m³
- Relative density at 68 °F: 1.076
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decomposition temperature</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Flammability</strong></td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>Non Flammable (&gt;199.4 °F)</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>458 °F</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Other information</strong></td>
<td></td>
</tr>
<tr>
<td>Surface tension at 68 °F</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 **Reactivity:**
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 **Chemical stability:**
Chemically stable under the conditions of storage, handling and use.

10.3 **Possibility of hazardous reactions:**
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 **Conditions to avoid:**
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 **Incompatible materials:**

<table>
<thead>
<tr>
<th>Incompatible Materials</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td></td>
<td></td>
<td>Precaution</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

10.6 **Hazardous decomposition products:**
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects:**
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Diethanolamine (2B); d-limonene (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:
Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>LD50 dermal 9530 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>LD50 dermal 1025 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>d-limonene</td>
<td>LD50 oral 4400 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>LD50 dermal 5100 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

**Acute Toxicity Estimate (ATE mix):**

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2246.39 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>9472.25 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>89.01 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

#### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>LC50 53000 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>EC50 51000 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>EC50 24000 mg/L (168 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>LC50 349 mg/L (96 h)</td>
<td>Cyprinus carpio</td>
<td>Fish</td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>EC50 65 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>EC50 22 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>E50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>EC50 33 mg/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d-limonene</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>LC50 0.702 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>EC50 0.577 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>d-limonene</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>BODS 0.47 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>COD 1.29 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>BODS/COD 0.36</td>
<td>% Biodegradable 90 %</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>BODS Non-applicable</td>
<td>Concentration 20 mg/L</td>
</tr>
<tr>
<td>d-limonene</td>
<td>BODS Non-applicable</td>
<td>Period 21 days</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>BODS/COD Non-applicable</td>
<td>% Biodegradable 90 %</td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>BCF 10</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td></td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-limonene</td>
<td>BCF 660</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>Pow Log 4.83</td>
</tr>
<tr>
<td></td>
<td>Potential High</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>Koc 0</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Conclusion Very High</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dry soil No</td>
<td></td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>Koc 1.27</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>Conclusion Very High</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dry soil No</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dry soil No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moist soil No</td>
<td></td>
</tr>
<tr>
<td>d-limonene</td>
<td>Koc 6324</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>Conclusion Immobile</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dry soil Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.675E-2 N/m (77 °F)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moist soil Yes</td>
<td></td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable

Date of compilation: 6/3/2019 Version: 1
SECTION 14: TRANSPORT INFORMATION (continued)

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises

Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises

Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Ethanediol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Ethanediol
The Toxic Substances Control Act (TSCA) : Ethanediol ; 2-aminoethanol ; 4-Nonylphenol, branched, ethoxylated ; Tetrasodium ethylenediaminetetraacetate ; Sodium hydroxide ; d-limonene
Massachusetts RTK - Substance List: Ethanediol ; Sodium hydroxide
New Jersey Worker and Community Right-to-Know Act: Ethanediol ; 2-aminoethanol ; Sodium hydroxide
New York RTK - Substance list: Ethanediol ; 2-aminoethanol ; Sodium hydroxide
Pennsylvania Worker and Community Right-to-Know Law: Ethanediol ; 2-aminoethanol ; Sodium hydroxide
CANADA-Domestic Substances List (DSL): Ethanediol ; 2-aminoethanol ; 4-Nonylphenol, branched, ethoxylated ; Tetrasodium ethylenediaminetetraacetate ; Sodium hydroxide ; d-limonene
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Ethanediol ; 2-aminoethanol ; Sodium hydroxide
Rhode Island - Hazardous substances RTK: Ethanediol ; 2-aminoethanol ; Sodium hydroxide
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Ethanediol (5000 pounds) ; Sodium hydroxide (1000 pounds)

Relevant instructions for use:
SECTION 15: REGULATORY INFORMATION (continued)

Application Dilution Ratios
Strongest Weakest Average ml per car / application
Touchless In-Bay, Friction & Hybrid Systems
1:100 1:150 1:120 20-40
Self-Serve Presoak (4-7 mls per min), Prep
Guns (3-6 mls per min), Hi Pressure Soap (7-
25 mls per min),
1:150 1:200 1:180
Required strength of product dilution will vary depending on cleaning conditions and type and condition of equipment used. Use Specific Gravity 1.09 in calculation of the usage.

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage
H335: May cause respiratory irritation
H317: May cause an allergic skin reaction
H314: Causes severe skin burns and eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 3: H226 - Flammable liquid and vapour
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
Skin Sens. 1: H317 - May cause an allergic skin reaction

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).
Abbreviations and acronyms:

- CONTINUED ON NEXT PAGE -
**SECTION 16: OTHER INFORMATION (continued)**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>CL50</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW</td>
<td>Octanol-water partition coefficient</td>
</tr>
<tr>
<td>Koc</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>

**Manufacturer Disclaimer:** The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF224 - Ultra Presoak 224

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products

Liquid Detergent Mixture for commercial car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:

Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1A: Skin corrosion, Category 1A, H314
Skin Sens. 1: Sensitisation, skin, Category 1, H317

2.2 Label elements:

29 CFR 1910.1200:

Danger

Hazard statements:

Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Sens. 1: H317 - May cause an allergic skin reaction

Precautionary statements:

P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification:

Surfactant Mixture ; Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; 2-aminoethanol

Acute Toxicity Estimate (ATE mix):

43.25 % (oral), 50.31 % (dermal), 50.31 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substances:  
Non-applicable

3.2 Mixtures:  
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:  
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Surfactant Mixture</td>
<td>35 - &lt;65 %</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>2-amino ethanol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>Potassium hydroxide</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 5089-27-5</td>
<td>d-limonene</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:  
Request medical assistance immediately, showing the SDS of this product.

By inhalation:  
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:  
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:  
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:  
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:  
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:  
Non-applicable
SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spill product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
SECTION 7: HANDLING AND STORAGE (continued)

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td>8-hour TWA PEL: 3 ppm</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL: 6 mg/m³</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL: 50 ppm</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL: 240 mg/m³</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL: 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks. Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections. Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
Physical state at 68 °F: Liquid
Appearance: Translucent
Color: Green
Odor: Citric
Odour threshold: Non-applicable *

**Volatile:**
Boiling point at atmospheric pressure: 225 °F
Vapour pressure at 68 °F: 2247 Pa
Vapour pressure at 122 °F: 88.84 (11.84 kPa)
Evaporation rate at 68 °F: Non-applicable *

**Product description:**
Density at 68 °F: 1088.6 kg/m³
Relative density at 68 °F: 1.089
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: Non-applicable *
Concentration: Non-applicable *

**pH:**
>13 at 100 %

**Vapour density at 68 °F:**
Non-applicable *

**Partition coefficient n-octanol/water 68 °F:**
Non-applicable *

**Solubility in water at 68 °F:**
Non-applicable *

**Solubility properties:**
Non-applicable *

**Decomposition temperature:**
Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *
  
**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 458 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *
  
**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *
  
9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Materials</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: Diethanolamine (2B); 2-butoxyethanol (3); d-limonene (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1025 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>LD50 oral 398 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>d-limonene</td>
<td>LD50 oral 4400 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 5100 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>3023.47 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>6827.59 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>72.37 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>LC50 349 mg/L (96 h)</td>
<td>Cyprinus carpio</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 65 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 22 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>LC50 80 mg/L (48 h)</td>
<td>Gambussia affinis</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d-limonene</td>
<td>LC50 0.702 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 0.577 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
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</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Concentration</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td>BOD5 Non-applicable</td>
<td>20 mg/L</td>
<td></td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>COD Non-applicable</td>
<td>Period</td>
<td>21 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable</td>
<td>90 %</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration</td>
<td>100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period</td>
<td>14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable</td>
<td>96 %</td>
</tr>
<tr>
<td>d-limonene</td>
<td>BOD5 Non-applicable</td>
<td>Concentration</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>COD Non-applicable</td>
<td>Period</td>
<td>28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable</td>
<td>100 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log</td>
</tr>
<tr>
<td></td>
<td>Potential</td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>Pow Log</td>
</tr>
<tr>
<td></td>
<td>Potential</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>d-limonene</td>
<td>BCF 660</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>Pow Log 4.83</td>
</tr>
<tr>
<td></td>
<td>Potential High</td>
</tr>
</tbody>
</table>

### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>Koc 0.27</td>
<td>Henry 3.7E-5 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 5.02SE-2 N/m (77 °F)</td>
<td>Moist soil No</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>d-limonene</td>
<td>Koc 6324</td>
<td>Henry 2533.13 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 5989-27-5</td>
<td>Conclusion Immobile</td>
<td>Dry soil Yes</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.675E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

### 12.5 Results of PBT and vPvB assessment:

Non-applicable

### 12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:
## SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
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</tr>
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<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>SODIUM HYDROXIDE SOLUTION</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### Transport of dangerous goods by sea:

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>UN1824</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>SODIUM HYDROXIDE SOLUTION</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>UN1824</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>SODIUM HYDROXIDE SOLUTION</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

## SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; 2-aminoethanol; 2-butoxyethanol; Potassium hydroxide; d-limonene
Massachusetts RTK - Substance List: Sodium hydroxide; Potassium hydroxide
New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide; 2-aminoethanol; 2-butoxyethanol; Potassium hydroxide
New York RTK - Substance list: Sodium hydroxide; 2-aminoethanol; 2-butoxyethanol; Potassium hydroxide
Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide; 2-aminoethanol; 2-butoxyethanol; Potassium hydroxide
CANADA-Domestic Substances List (DSL): Sodium hydroxide; Tetrasodium ethylenediaminetetraacetate; 2-aminoethanol; 2-butoxyethanol; Potassium hydroxide; d-limonene
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesoata - Hazardous substances ERTK: Sodium hydroxide; 2-aminoethanol; 2-butoxyethanol; Potassium hydroxide
Rhode Island - Hazardous substances RTK: Sodium hydroxide; 2-aminoethanol; 2-butoxyethanol; Potassium hydroxide
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds); Potassium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H317: May cause an allergic skin reaction

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled
Eye Dam. 1: H314 - Causes severe skin burns and eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 3: H226 - Flammable liquid and vapour
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
Skin Sens. 1: H317 - May cause an allergic skin reaction

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

- CONTINUED ON NEXT PAGE -
SECTION 16: OTHER INFORMATION (continued)

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF231 - Low Pressure Presoak

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   High foaming liquid mixtures for car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

   Precautionary statements:
   P260: Do not breathe dust/fume/gas/mist/vapours/spray
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to
do. Continue rinsing
   P310: Immediately call a poison center/doctor

   Substances that contribute to the classification
   Surfactant Mixture; Sodium hydroxide; Potassium hydroxide; Tetrasodium ethylenediaminetetraacetate

   Acute Toxicity Estimate (ATE mix):
   28.98 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Surfactant Mixture</td>
<td>Acute Tox. 4: H302+H332; Eye Dam. 1: H318; Skin Corr. 1A: H314 - Danger</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Sodium hydroxide</td>
<td>Skin Corr. 1A: H314 - Danger</td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>Potassium hydroxide</td>
<td>Acute Tox. 4: H302; Skin Corr. 1A: H314 - Danger</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

- CONTINUED ON NEXT PAGE -
### SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 **Special protective equipment and precautions for fire-fighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures:**

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 **Environmental precautions:**

The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 **Methods and materials for containment and cleaning up:**

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 **Reference to other sections:**

See sections 8 and 13.

### SECTION 7: HANDLING AND STORAGE

7.1 **Precautions for safe handling:**

A.- Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 **Conditions for safe storage, including any incompatibilities:**

A.- Technical measures for storage

Minimum Temp.: -4 °F

Maximum Temp.: 120 °F

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 **Specific end use(s):**
SECTION 7: HANDLING AND STORAGE (continued)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mandatory hand protection" /></td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mandatory face protection" /></td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Work clothing" /></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td><img src="image" alt="Anti-slip work shoes" /></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

Date of compilation: 3/6/2019            Version: 1
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

**Environmental exposure controls:**
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 **Information on basic physical and chemical properties:**
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Amber
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 212 ºF
- Vapour pressure at 68 ºF: 2350 Pa
- Vapour pressure at 122 ºF: 92.86 (12.38 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1054.8 kg/m³
- Relative density at 68 ºF: 1.055
- Dynamic viscosity at 68 ºF: 1.84 cP
- Kinematic viscosity at 68 ºF: 1.74 cSt
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 615 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2,2',2''-nitrilotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide</td>
<td>LD50 oral 388 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>15547.36 mg/kg (Calculation method) 28.98 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method) Non-applicable</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method) Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>EC50 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**SECTION 12: ECOLOGICAL INFORMATION (continued)**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide</td>
<td>LC50 80 mg/L (48 h)</td>
<td>Gambussia afinis</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:
- Not available

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -13</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
- Non-applicable

12.6 Other adverse effects:
- Not described

---

**SECTION 13: DISPOSAL CONSIDERATIONS**

13.1 Disposal methods:

**Waste management (disposal and evaluation):**
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

---

**SECTION 14: TRANSPORT INFORMATION**

**Transport of dangerous goods by land:**
With regard to 49 CFR on the Transport of Dangerous Goods:
**SECTION 14: TRANSPORT INFORMATION (continued)**

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>UN1824</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>SODIUM HYDROXIDE SOLUTION</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td>.....</td>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
</tbody>
</table>

**Physico-Chemical properties:**
see section 9

**Packing group, if applicable:**
8

**Labels:**
8

**Transport hazard class(es):**
SODIUM HYDROXIDE SOLUTION

**UN proper shipping name:**
UN number:
UN1824

**UN number:**
UN1824

**UN proper shipping name:**
SODIUM HYDROXIDE SOLUTION

**Transport of dangerous goods by sea:**

<table>
<thead>
<tr>
<th>14.6</th>
<th>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
</tr>
</tbody>
</table>

**Non-applicable**

**Environmental hazard:**
No

<table>
<thead>
<tr>
<th>14.6</th>
<th>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
</tr>
</tbody>
</table>

**Non-applicable**

**Environmental hazard:**
No

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.6</th>
<th>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
</tr>
</tbody>
</table>

**Non-applicable**

**Environmental hazard:**
No

**Transport of dangerous goods by sea:**

<table>
<thead>
<tr>
<th>14.6</th>
<th>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
</tr>
</tbody>
</table>

**Non-applicable**

**Environmental hazard:**
No

**Transport of dangerous goods by air:**

<table>
<thead>
<tr>
<th>14.6</th>
<th>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
</tr>
</tbody>
</table>

**Non-applicable**

**Environmental hazard:**
No

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):**
Non-applicable

**SECTION 15: REGULATORY INFORMATION**

| 15.1 | Safety, health and environmental regulations specific for the product in question: |

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Date of compilation: 3/6/2019 Version: 1
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Sodium hydroxide; Potassium hydroxide; Tetrasodium ethylenediaminetetraacetate
Massachusetts RTK - Substance List: Sodium hydroxide; Potassium hydroxide
New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide; Potassium hydroxide
New York RTK - Substance list: Sodium hydroxide; Potassium hydroxide
Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide; Potassium hydroxide
CANADA-Domestic Substances List (DSL): Sodium hydroxide; Potassium hydroxide; Tetrasodium ethylenediaminetetraacetate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Sodium hydroxide; Potassium hydroxide
Rhode Island - Hazardous substances RTK: Sodium hydroxide; Potassium hydroxide
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds); Potassium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

- CONTINUED ON NEXT PAGE -
Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF235 - Foamy Presoak 235
1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   High foaming liquid mixtures for car washes.
   Uses advised against: All uses not specified in this section or in section 7.3
1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com
1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Carc. 2: Carcinogenicity, Category 2, H351
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Irrit. 2: Skin irritation, Category 2, H315
2.2 Label elements:
   29 CFR 1910.1200:
   Danger
   
   Hazard statements:
   Carc. 2: H351 - Suspected of causing cancer
   Eye Dam. 1: H318 - Causes serious eye damage
   Skin Irrit. 2: H315 - Causes skin irritation
   Precautionary statements:
   P201: Obtain special instructions before use
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P302+P352: IF ON SKIN: Wash with plenty of soap and water
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P308+P313: IF exposed or concerned: Get medical advice/attention
   P310: Immediately call a poison center/doctor
   P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively
   Substances that contribute to the classification
   Sodium Alkylsulfonates; Anionic Surfactants; Amides, coco, N,N-bis(hydroxyethyl); Diethanolamine
   Acute Toxicity Estimate (ATE mix):
   5.7 % (oral), 8.76 % (dermal), 28.88 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity
2.3 Other hazards which do not result in classification:
   Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 **Substances:**
Non-applicable

3.2 **Mixtures:**

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Sodium Alkylsulfonates</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Anionic Surfactants</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Carc. 2: H351; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>Diethanolamine</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Carc. 2: H351; Eye Dam. 1: H318; Skin Irrit. 2: H315; STOT RE 2: H373 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 **Description of necessary measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 **Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

4.3 **Indication of immediate medical attention and special treatment needed, if necessary:**

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 **Suitable (and unsuitable) extinguishing media:**

[CONTINUED ON NEXT PAGE]
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F
SECTION 7: HANDLING AND STORAGE (continued)

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Substance</th>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Semitransparent
- Color: Blue
- Odor: Not available
- Odour threshold: Non-applicable *

**Volutility:**
- Boiling point at atmospheric pressure: 218 °F
- Vapour pressure at 68 °F: 2323 Pa
- Vapour pressure at 122 °F: 91.81 (12.24 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1038.1 kg/m³
- Relative density at 68 °F: 1.038
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 10.5 - 11.5 at 100 %
- Vapour pressure at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

| Category         | Acids | Water | Oxidising materials | Combustible materials | Others
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.
Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.
  - IARC: 2-butoxyethanol (3); Amides, coco, N,N-bis(hydroxyethyl) (2B); Diethanolamine (2B); 2,2’,2”-nitrilotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, however, it does contain substances which are classified as dangerous due to repetitive exposure. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 oral 2290 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 6300 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 66603-42-9</td>
<td>LD50 oral 12200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Diethanolamine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>LD50 oral 710 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 12200 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>28280 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>21200 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>156.46 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

- CONTINUED ON NEXT PAGE -
12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LC50 4.2 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 4.53 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 5.2 mg/L (72 h)</td>
<td>Skeletonema costatum</td>
<td>Algæ</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algæ</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>LC50 3.6 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 4.2 mg/L (34 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 2.2 mg/L (96 h)</td>
<td>Skeletonema costatum</td>
<td>Algæ</td>
</tr>
<tr>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LC50 800 mg/L (24 h)</td>
<td>Carassius auratus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 180 mg/L (24 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 75 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algæ</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>BOD5 Non-applicable</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD Non-applicable</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable</td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>BOD5 0.03 g O2/g</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>COD 1.52 g O2/g</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.02</td>
<td>% Biodegradable</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>BCF 71</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Pow Log -1.3</td>
</tr>
<tr>
<td></td>
<td>Potential Moderate</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>BCF 1</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>Pow Log -1.43</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>Koc 1.6</td>
<td>Henry 6.7E-2 Pa m³/mol</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Conclusion Very High</td>
<td>Dry soil Yes</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>Koc Non-applicable</td>
<td>Henry Non-applicable</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>Conclusion Non-applicable</td>
<td>Dry soil Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Surface tension 1.4E-2 N/m (299.21 °F)</td>
<td>Moist soil Non-applicable</td>
</tr>
</tbody>
</table>

12.6 Other adverse effects:
SECTION 12: ECOLOGICAL INFORMATION (continued)

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
  Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
  Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
  Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
  Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
   Non-applicable
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol ; Diethanolamine
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Diethanolamine
   The Toxic Substances Control Act (TSCA) : Sodium Alkylsulfonates ; Anionic Surfactants ; 2-butoxyethanol ; Amides, coco, N,N-
   bis(hydroxyethyl) ; Diethanolamine
   Massachusetts RTK - Substance List: Diethanolamine
   New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol ; Diethanolamine
   New York RTK - Substance list: 2-butoxyethanol ; Diethanolamine
   Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol ; Diethanolamine
   CANADA-Domestic Substances List (DSL): Sodium Alkylsulfonates ; Anionic Surfactants ; 2-butoxyethanol ; Amides, coco, N,N-
   bis(hydroxyethyl) ; Diethanolamine
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: 2-butoxyethanol ; Diethanolamine
   Rhode Island - Hazardous substances RTK: 2-butoxyethanol ; Diethanolamine
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Diethanolamine (100 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
product.

Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage
H351: Suspected of causing cancer

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the
individual components which appear in section 3

29 CFR 1910.1200:
SECTION 16: OTHER INFORMATION (continued)

Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Carc. 2: H351 - Suspected of causing cancer
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
**SECTION 1: IDENTIFICATION**

1.1 **GHS Product identifier:** UF240 - High Pressure Detergent Lemon Lime 240

1.2 **Recommended use of the chemical and restrictions on use:**

   Relevant uses: Chemical cleaning products

   High foaming liquid mixtures for car washes.

   Uses advised against: All uses not specified in this section or in section 7.3

1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**

   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

**SECTION 2: HAZARD(S) IDENTIFICATION**

2.1 **Classification of the substance or mixture:**

   29 CFR 1910.1200:

   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

   Carc. 2: Carcinogenicity, Category 2, H351

   Eye Dam. 1: Serious eye damage, Category 1, H318

   Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 **Label elements:**

   29 CFR 1910.1200:

   Danger

   Hazard statements:

   Carc. 2: H351 - Suspected of causing cancer

   Eye Dam. 1: H318 - Causes serious eye damage

   Skin Irrit. 2: H315 - Causes skin irritation

   Precautionary statements:

   P201: Obtain special instructions before use

   P264: Wash thoroughly after use

   P280: Wear protective gloves/protective clothing/eye protection/face protection

   P302+P352: IF ON SKIN: Wash with plenty of soap and water

   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

   P308+P313: IF exposed or concerned: Get medical advice/attention

   P310: Immediately call a poison center/doctor

   P501: Dispose of contents and | or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

2.3 **Other hazards which do not result in classification:**

   Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Sodium Alkylsulfonates</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Anionic Surfactants</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Carc. 2: H351; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>Diethanolamine</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Carc. 2: H351; Eye Dam. 1: H318; Skin Irrit. 2: H315; STOT RE 2: H373 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

- CONTINUED ON NEXT PAGE -
SECTION 7: HANDLING AND STORAGE (continued)

B. - General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

- Mandatory hand protection
  - Protective gloves against minor risks
  - Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)

  As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

- Mandatory face protection
  - Panoramic glasses against splash/projections
  - Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)

E. - Bodily protection

- Work clothing
  - Replace before any evidence of deterioration.

- Anti-slip work shoes
  - Replace before any evidence of deterioration.

F. - Additional emergency measures
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Viscous
- Color: Turquoise
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 219 °F
- Vapour pressure at 68 °F: 2316 Pa
- Vapour pressure at 122 °F: 91.55 (12.21 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1040.2 kg/m³
- Relative density at 68 °F: 1.04
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: >20.5 cSt
- Concentration: Non-applicable *
- pH: 10.5 - 11.5 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.
  IARC: 2-butoxyethanol (3); Amides, coco, N,N-bis(hydroxyethyl) (2B); Diethanolamine (2B); 2,2',2''-nitrilotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, however, it does contain substances which are classified as dangerous due to repetitive exposure. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>LD50 oral 2290 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal 6300 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>LD50 oral 12200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>LD50 oral 710 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>LD50 dermal 12200 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>19808.45 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>15372.65 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>118.9 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

- CONTINUED ON NEXT PAGE -
### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>LC50 4.2 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 4.53 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 1490 mg/L (96 h)</td>
<td>Skeletonema costatum</td>
<td>Algae</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>EC50 4.2 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td></td>
<td>EC50 2.2 mg/L (96 h)</td>
<td>Scenedesmus subspissatus</td>
<td>Algae</td>
</tr>
<tr>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>LC50 3.6 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>EC50 4.2 mg/L (34 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 2.2 mg/L (96 h)</td>
<td>Scenedesmus subspissatus</td>
<td>Algae</td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>LC50 800 mg/L (24 h)</td>
<td>Carassius auratus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>EC50 180 mg/L (24 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 75 mg/L (72 h)</td>
<td>Scenedesmus subspissatus</td>
<td>Algae</td>
</tr>
</tbody>
</table>

### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>BOD5 Non-applicable</td>
<td>Concentration 20 mg/L</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>BOD5 0.03 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>COD 1.52 g O2/g</td>
<td>Period 21 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.02</td>
<td>% Biodegradable 54 %</td>
</tr>
</tbody>
</table>

### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>BCF 71</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Pow Log -1.3</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Potential Moderate</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>BCF 3</td>
</tr>
<tr>
<td></td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>Potential Low</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>BCF 1</td>
</tr>
<tr>
<td></td>
<td>Pow Log -1.43</td>
</tr>
</tbody>
</table>

### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>Koc 1.6</td>
<td>Henry 6.7E-2 Pa m³/mol</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Conclusion Very High</td>
<td>Dry soil Yes</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>Koc Non-applicable</td>
<td>Henry Non-applicable</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>Conclusion Non-applicable</td>
<td>Dry soil Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Surface tension 1.4E-2 N/m (299.21 °F)</td>
<td>Moist soil Non-applicable</td>
</tr>
</tbody>
</table>

### 12.5 Results of PBT and vPvB assessment:

Non-applicable

### 12.6 Other adverse effects:

- CONTINUED ON NEXT PAGE -
SECTION 12: ECOLOGICAL INFORMATION (continued)

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:
SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol ; Diethanolamine
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Diethanolamine
- The Toxic Substances Control Act (TSCA) : Sodium Alkylsulfonates ; Anionic Surfactants ; 2-butoxyethanol ; Amides, coco, N,N-bis(hydroxyethyl) ; Diethanolamine
- Massachusetts RTK - Substance List: Diethanolamine
- New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol ; Diethanolamine
- New York RTK - Substance list: 2-butoxyethanol ; Diethanolamine
- Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol ; Diethanolamine
- CANADA-Domestic Substances List (DSL): Sodium Alkylsulfonates ; Anionic Surfactants ; 2-butoxyethanol ; Amides, coco, N,N-bis(hydroxyethyl) ; Diethanolamine
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: 2-butoxyethanol ; Diethanolamine
- Rhode Island - Hazardous substances RTK: 2-butoxyethanol ; Diethanolamine
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Diethanolamine (100 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
- H315: Causes skin irritation
- H318: Causes serious eye damage
- H351: Suspected of causing cancer

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Carc. 2: H351 - Suspected of causing cancer
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF250 - Foam Brush Red Bubble Gum 250

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products
High foaming liquid mixtures for car washes.

Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Carc. 2: Carcinogenicity, Category 2, H351
Eye Irrit. 2: Eye irritation, Category 2, H319
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:

29 CFR 1910.1200:
Warning

Hazard statements:
Carc. 2: H351 - Suspected of causing cancer
Eye Irrit. 2: H319 - Causes serious eye irritation
Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:
P201: Obtain special instructions before use
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313: IF exposed or concerned: Get medical advice/attention
P337+P313: If eye irritation persists: Get medical advice/attention
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Amides, coco, N,N-bis(hydroxyethyl); Diethanolamine

Acute Toxicity Estimate (ATE mix):
24.01 % (oral), 30.61 % (dermal), 41.81 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Sodium Alkylsulfonates</td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>Sodium xylenesulphonate</td>
<td>Eye Irrit. 2: H319 - Warning</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>Carc. 2: H351; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>Diethanolamine</td>
<td>Acute Tox. 4: H302; Carc. 2: H351; Eye Dam. 1: H318; Skin Irrit. 2: H315; STOT RE 2: H373 - Danger</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.
B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

- CONTINUED ON NEXT PAGE -
SECTION 7: HANDLING AND STORAGE (continued)

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5.

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>Ceiling Values - TWA PEL.</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL.</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,….) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Viscous
- Color: Red
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 216 °F
- Vapour pressure at 68 °F: 2331 Pa
- Vapour pressure at 122 °F: 92.11 (12.28 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1056.6 kg/m³
- Relative density at 68 °F: 1.057
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: >20.5 cSt
- Concentration: Non-applicable *
- pH: Non-applicable *
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>Non Flammable (&gt;199.4 °F)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>460 °F</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

**9.2 Other information:**

- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY**

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>None applicable</th>
<th>Precaution</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact with air</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase in temperature</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunlight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humidity</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Category</th>
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<th>Not applicable</th>
<th>Not applicable</th>
<th>Others</th>
</tr>
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<tbody>
<tr>
<td>Acids</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxidising materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combustible materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Avoid strong acids: Not applicable

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION**

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.
  IARC: 2-butoxyethanol (3); Amides, coco, N,N-bis(hydroxyethyl) (2B); Diethanolamine (2B)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, however, it does contain substances which are classified as dangerous due to repetitive exposure. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicity information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>LD50 oral 2290 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal 6300 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Sodium xylenesulphonate</td>
<td>LD50 oral 7200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>LD50 oral 12200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>LD50 oral 710 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>LD50 dermal 12200 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

#### Acute Toxicity Estimate (ATE mix):

| Oral | 35815.44 mg/kg (Calculation method) | 24.01 % |
| Dermal | 24516.92 mg/kg (Calculation method) | 30.61 % |
| Inhalation | 213.35 mg/L (4 h) (Calculation method) | 41.81 % |

### SECTION 12: ECOLOGICAL INFORMATION

#### The experimental information related to the eco-toxicological properties of the product itself is not available

#### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>LC50 4.2 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 4.53 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 5.2 mg/L (72 h)</td>
<td>Skeletonema costatum</td>
<td>Algae</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>LC50 3.6 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>EC50 4.2 mg/L (34 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 2.2 mg/L (96 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>LC50 800 mg/L (24 h)</td>
<td>Carassius auratus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>EC50 180 mg/L (24 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 75 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>BOD5 Non-applicable</td>
<td>Concentration 20 mg/L</td>
<td>BCF 71 Pow Log -1.3 Potential Moderate</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 96 %</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
<td>BCF 3 Pow Log 0.83 Potential Low</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
<td></td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>BOD5 0.03 g O2/g</td>
<td>Concentration 100 mg/L</td>
<td>BCF 1 Pow Log -1.43 Potential Low</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>COD 1.52 g O2/g</td>
<td>Period 21 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.02</td>
<td>% Biodegradable 54 %</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Koc</td>
<td>1.6</td>
<td>Henry</td>
</tr>
<tr>
<td>Conclusion</td>
<td>Very High</td>
<td>Dry soil</td>
</tr>
<tr>
<td>Surface tension</td>
<td>Non-applicable</td>
<td>Moist soil</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Koc</td>
<td>8</td>
<td>Henry</td>
</tr>
<tr>
<td>Conclusion</td>
<td>Very High</td>
<td>Dry soil</td>
</tr>
<tr>
<td>Surface tension</td>
<td>2.729E-2 N/m (77 °F)</td>
<td>Moist soil</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Diethanolamine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Koc</td>
<td>Non-applicable</td>
<td>Henry</td>
</tr>
<tr>
<td>Conclusion</td>
<td>Non-applicable</td>
<td>Dry soil</td>
</tr>
<tr>
<td>Surface tension</td>
<td>3.4E-2 N/m (299.21 °F)</td>
<td>Moist soil</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
### SECTION 14: TRANSPORT INFORMATION (continued)

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<td>14.2</td>
<td>UN proper shipping name:</td>
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</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

#### 15.1 Safety, health and environmental regulations specific for the product in question:

- **SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313):** 2-butoxyethanol; Diethanolamine
- **California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986):** Diethanolamine
- **The Toxic Substances Control Act (TSCA):** Sodium Alkylsulfonates; Sodium xylenesulphonate; 2-butoxyethanol; Amides, coco, N.N-bis(hydroxyethyl); Diethanolamine
- **Massachusetts RTK - Substance List:** Diethanolamine
- **New Jersey Worker and Community Right-to-Know Act:** 2-butoxyethanol; Diethanolamine
- **New York RTK - Substance list:** 2-butoxyethanol; Diethanolamine
- **Pennsylvania Worker and Community Right-to-Know Law:** 2-butoxyethanol; Diethanolamine
- **CANADA-Domestic Substances List (DSL):** Sodium Alkylsulfonates; Sodium xylenesulphonate; 2-butoxyethanol; Amides, coco, N.N-bis(hydroxyethyl); Diethanolamine
- **CANADA-Non-Domestic Substances List (NDSL):** Non-applicable
- **NTP (National Toxicology Program):** Non-applicable
- **Minnesota - Hazardous substances ERTK:** 2-butoxyethanol; Diethanolamine
- **Rhode Island - Hazardous substances RTK:** 2-butoxyethanol; Diethanolamine
- **OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096):** Non-applicable
- **Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302):** Diethanolamine (100 pounds)

#### Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

#### Other legislation:
SECTION 15: REGULATORY INFORMATION (continued)

The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H351: Suspected of causing cancer
H315: Causes skin irritation
H319: Causes serious eye irritation

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Carc. 2: H351 - Suspected of causing cancer
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 **GHS Product identifier:** UF260 - Body Shampoo 260

1.2 **Recommended use of the chemical and restrictions on use:**

- **Relevant uses:** Chemical cleaning products
- **High lubricity detergent mixture for commercial car washes.**
- **Uses advised against:** All uses not specified in this section or in section 7.3

1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 **Classification of the substance or mixture:**

- **29 CFR 1910.1200:**
  - Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
- **Acute Tox. 4:** Acute toxicity on contact with skin, Category 4, H312
- **Acute Tox. 4:** Acute toxicity if swallowed, Category 4, H302
- **Acute Tox. 4:** Acute inhalation toxicity, Category 4, H332
- **Eye Dam. 1:** Serious eye damage, Category 1, H318
- **Skin Corr. 1A:** Skin corrosion, Category 1A, H314

2.2 **Label elements:**

- **29 CFR 1910.1200:**
  - **Danger**
  - **Hazard statements:**
    - **Acute Tox. 4:** H312 - Harmful in contact with skin
    - **Acute Tox. 4:** H302 - Harmful if swallowed
    - **Acute Tox. 4:** H332 - Harmful if inhaled
    - **Skin Corr. 1A:** H314 - Causes severe skin burns and eye damage
  - **Precautionary statements:**
    - **P280:** Wear protective gloves/protective clothing/eye protection/face protection
    - **P301+P330+P331:** IF SWALLOWED: rinse mouth. Do NOT induce vomiting
    - **P302+P352:** IF ON SKIN: Wash with plenty of soap and water
    - **P303+P361+P353:** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
    - **P304+P340:** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
    - **P305+P351+P338:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
    - **P310:** Immediately call a poison center/doctor
    - **P501:** Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively
  - **Substances that contribute to the classification**
    - Dodecylbenzenesulphonic acid; 2-butoxyethanol; Ethanol; Sulphuric acid
  - **Acute Toxicity Estimate (ATE mix):**
    - 0 % (oral), 64.29 % (dermal), 72.29 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity
2.3 Other hazards which do not result in classification: 
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances: 
Non-applicable

3.2 Mixtures: 
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components: 
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 27176-87-0</td>
<td>Dodecylbenzenesulphonic acid</td>
<td>35 - &lt;65 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Ethanediol</td>
<td>5 - &lt;10 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures: 
Request medical assistance immediately, showing the SDS of this product.

By Inhalation: 
Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact: 
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact: 
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration: 
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed: 
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary: 
Non-applicable
SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation, and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. - Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation, and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. - Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. - Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
SECTION 7: HANDLING AND STORAGE (continued)

Minimum Temp.: -4 °F  
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Substance</th>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL</td>
<td>50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL</td>
<td>240 mg/m³</td>
</tr>
<tr>
<td>Sulphuric acid</td>
<td>8-hour TWA PEL</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td>CAS: 7664-93-9</td>
<td>Ceiling Values - TWA PEL</td>
<td></td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>8-hour TWA PEL</td>
<td>3 ppm</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>Ceiling Values - TWA PEL</td>
<td>6 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory hand protection</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
<tr>
<td></td>
<td>Protective gloves against minor risks</td>
<td></td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory face protection</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
<tr>
<td></td>
<td>Panoramic glasses against splash/projections.</td>
<td></td>
</tr>
</tbody>
</table>

E.- Bodily protection

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Orange
- Odor: Not available
- Odour threshold: Non-applicable *

Volatility:
- Boiling point at atmospheric pressure: 352 ºF
- Vapour pressure at 68 ºF: 92 Pa
- Vapour pressure at 122 ºF: 4.52 (0.6 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

Product description:
- Density at 68 ºF: 1097.9 kg/m³
- Relative density at 68 ºF: 1.098
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: <1
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/freezing point:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Oxidising properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Flammability:</strong></td>
<td></td>
</tr>
<tr>
<td>Flash Point:</td>
<td>Non Flammable (&gt;199.4 °F)</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature:</td>
<td>239 °F</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

**9.2 Other information:**

- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

### SECTION 10: STABILITY AND REACTIVITY

10.1 **Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 **Chemical stability:**

Chemically stable under the conditions of storage, handling and use.

10.3 **Possibility of hazardous reactions:**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 **Conditions to avoid:**

Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 **Incompatible materials:**

<table>
<thead>
<tr>
<th>Incompatible Materials</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 **Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

### SECTION 11: TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects:**

The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Exposure in high concentration can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3); Diethanolamine (2B)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Ethanediol</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>LD50 dermal 9530 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Dodecylbenzenesulphonic acid</td>
<td>LD50 oral 880 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 27176-87-0</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):
## SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>935.08 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>1431.08 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>11.52 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

## SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dodecylbenzenesulphonic acid</td>
<td>LC50 5 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 27176-87-0</td>
<td>EC50 5.9 mg/L (24 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
<td></td>
</tr>
<tr>
<td>Ethanediol</td>
<td>LC50 53000 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>EC50 51000 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>EC50 24000 mg/L (168 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
<td></td>
</tr>
</tbody>
</table>

### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g Concentration 100 mg/L</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g Period 14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32 % Biodegradable 96 %</td>
<td></td>
</tr>
<tr>
<td>Ethanediol</td>
<td>BOD5 0.47 g O2/g Concentration 100 mg/L</td>
<td></td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>COD 1.29 g O2/g Period 14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.36 % Biodegradable 90 %</td>
<td></td>
</tr>
</tbody>
</table>

### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3 Pow Log 0.83 Potential Low</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
<tr>
<td>Ethanediol</td>
<td>BCF 10 Pow Log -1.36 Potential Low</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td></td>
</tr>
</tbody>
</table>

### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8 Henry 1.621E-1 Pa m³/mol</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High Dry soil No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.72E-2 N/m (77 °F) Moist soil Yes</td>
<td></td>
</tr>
<tr>
<td>Ethanediol</td>
<td>Koc 0 Henry 1.327E-1 Pa m³/mol</td>
<td></td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Conclusion Very High Dry soil No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surface tension 4.98E-2 N/m (77 °F) Moist soil No</td>
<td></td>
</tr>
</tbody>
</table>

### 12.5 Results of PBT and vPvB assessment:

Non-applicable

### 12.6 Other adverse effects:

Not described

## SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

- CONTINUED ON NEXT PAGE -
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in
direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-
dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN2586
14.2 UN proper shipping name: ALKYLSULPHONIC ACIDS, LIQUID or ARYLSULPHONIC ACIDS,
LIQUID with not more than 5% free sulphuric acid
(Dodecylbenzenesulphonic acid)
14.3 Transport hazard class(es): 8
     Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
transport or conveyance either within or outside their premises
     Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
     Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN2586
14.2 UN proper shipping name: ALKYLSULPHONIC ACIDS, LIQUID or ARYLSULPHONIC ACIDS,
LIQUID with not more than 5% free sulphuric acid
(Dodecylbenzenesulphonic acid)
14.3 Transport hazard class(es): 8
     Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
transport or conveyance either within or outside their premises
     Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
     Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN2586
14.2 UN proper shipping name: ALKYLsULPHONIC ACIDS, LIQUID or ARYLSULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid (Dodecylbenzenesulphonic acid)
14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol; Ethanediol
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Ethanediol
- The Toxic Substances Control Act (TSCA): Dodecylbenzenesulphonic acid; 2-butoxyethanol; Ethanediol
- Massachusetts RTK - Substance List: Dodecylbenzenesulphonic acid; Ethanediol
- New Jersey Worker and Community Right-to-Know Act: Dodecylbenzenesulphonic acid; 2-butoxyethanol; Ethanediol
- New York RTK - Substance list: Dodecylbenzenesulphonic acid; 2-butoxyethanol; Ethanediol
- Pennsylvania Worker and Community Right-to-Know Law: Dodecylbenzenesulphonic acid; 2-butoxyethanol; Ethanediol
- CANADA-Domestic Substances List (DSL): Dodecylbenzenesulphonic acid; 2-butoxyethanol; Ethanediol
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: 2-butoxyethanol; Ethanediol
- Rhode Island - Hazardous substances RTK: 2-butoxyethanol; Ethanediol
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Dodecylbenzenesulphonic acid (1000 pounds); Ethanediol (5000 pounds)

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H312: Harmful in contact with skin
H302: Harmful if swallowed
H332: Harmful if inhaled

Texts of the legislative phrases mentioned in section 3:
SECTION 16: OTHER INFORMATION (continued)

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:

- Acute Tox. 4: H302 - Harmful if swallowed
- Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flm. Liq. 4: H227 - Combustible liquid
- Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
- Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon
### SECTION 1: IDENTIFICATION

1.1 **GHS Product identifier:** UF265 - Body Shampoo 265 Neutral  
1.2 **Recommended use of the chemical and restrictions on use:**  
   Relevant uses: Chemical cleaning products  
   High foaming liquid detergent mixtures for car washes  
   Uses advised against: All uses not specified in this section or in section 7.3  
1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**  
   Cleaning Systems, Inc.  
   1997 American Blvd  
   54115 De Pere - United States  
   Phone.: 9203372175 - Fax: 9203379410  
   chemcompliance@cleaningsystemsinc.com  
   http://cleaningsystemsinc.com  
1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

### SECTION 2: HAZARD(S) IDENTIFICATION

2.1 **Classification of the substance or mixture:**  
   29 CFR 1910.1200:  
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.  
   Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302  
   Eye Dam. 1: Serious eye damage, Category 1, H318  
   Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 **Label elements:**  
   29 CFR 1910.1200:  
   Danger  
   ![Danger symbol]  
   **Hazard statements:**  
   Acute Tox. 4: H302 - Harmful if swallowed  
   Eye Dam. 1: H318 - Causes serious eye damage  
   Skin Irrit. 2: H315 - Causes skin irritation  
   **Precautionary statements:**  
   P264: Wash thoroughly after use  
   P270: Do no eat, drink or smoke when using this product  
   P280: Wear protective gloves/protective clothing/eye protection/face protection  
   P302+P352: IF ON SKIN: Wash with plenty of soap and water  
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
   P310: Immediately call a poison center/doctor  
   P330: Rinse mouth  
   P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively  
   **Substances that contribute to the classification**  
   Anionic Surfactants; Sodium Alkylsulfonates; Ethanediol; 2-butoxyethanol  
   **Acute Toxicity Estimate (ATE mix):**  
   24.99 % (oral), 24.99 % (dermal), 61.9 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 **Other hazards which do not result in classification:**  
   Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Anionic Surfactants</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Sodium Alkylsulfonates</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Ethanediol</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By Inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By Skin Contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By Eye Contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By Ingestion/Absorption:
Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most Important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

- CONTINUED ON NEXT PAGE -
### SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

#### 5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

#### 5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

#### 6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

#### 6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

#### 6.4 Reference to other sections:
See sections 8 and 13.

### SECTION 7: HANDLING AND STORAGE

#### 7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

#### 7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
- Minimum Temp.: -4 ºF
- Maximum Temp.: 120 ºF
SECTION 7: HANDLING AND STORAGE (continued)

B. - General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
   Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
   Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Liquid
Appearance: Viscous
Color: Purple
Odor: Mild
Odour threshold: Non-applicable *

Volatility:
Boiling point at atmospheric pressure: 265 °F
Vapour pressure at 68 °F: 1917 Pa
Vapour pressure at 122 °F: 75.84 (10.11 kPa)
Evaporation rate at 68 °F: Non-applicable *

Product description:
Density at 68 °F: 1049.3 kg/m³
Relative density at 68 °F: 1.049
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: >20.5 cSt
Concentration: Non-applicable *
pH: 8 - 9 at 100 %
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 °F)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 °F
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Explosive:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

9.2 Other information:

| Surface tension at 68 °F: | Non-applicable * |
| Refraction index: | Non-applicable * |

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>LD50 oral 2290 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal 6300 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Ethanediol</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>LD50 dermal 9530 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1818.19 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>8903.76 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>46.93 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>LC50 4.2 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 4.53 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 5.2 mg/L (72 h)</td>
<td>Skeletonema costatum</td>
<td>Algae</td>
</tr>
<tr>
<td>Ethanol</td>
<td>LC50 53000 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 51000 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 24000 mg/L (168 h)</td>
<td>Skeletonema costatum</td>
<td>Algae</td>
</tr>
<tr>
<td>Ethanediol</td>
<td>LC50 4.53 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 5.2 mg/L (72 h)</td>
<td>Skeletonema costatum</td>
<td>Algae</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 4.53 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 5.2 mg/L (72 h)</td>
<td>Skeletonema costatum</td>
<td>Algae</td>
</tr>
<tr>
<td>12.2 Persistence and degradability:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>BOD5 Non-applicable</td>
<td>% Biodegradable 96 %</td>
</tr>
<tr>
<td></td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>Concentration 20 mg/L</td>
</tr>
<tr>
<td>Ethanol</td>
<td>BOD5 0.47 g O2/g</td>
<td>% Biodegradable 90 %</td>
</tr>
<tr>
<td></td>
<td>COD 1.29 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>% Biodegradable 96 %</td>
</tr>
<tr>
<td></td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td>12.3 Bioaccumulative potential:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>BCF 71</td>
</tr>
<tr>
<td></td>
<td>Pow Log -1.3</td>
</tr>
<tr>
<td></td>
<td>Potential Moderate</td>
</tr>
<tr>
<td>Ethanol</td>
<td>BCF 10</td>
</tr>
<tr>
<td></td>
<td>Pow Log -1.36</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td></td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>12.4 Mobility in soil:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Alkylsulfonates</td>
<td>Koc 1.6</td>
<td>Henry 6.7E-2 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion Very High</td>
<td>Dry soil Yes</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>Ethanol</td>
<td>Koc 0</td>
<td>Henry 1.32E-1 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 4.989E-2 N/m (77 ºF)</td>
<td>Moist soil No</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>12.5 Results of PBT and vPvB assessment:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
**SECTION 13: DISPOSAL CONSIDERATIONS (continued)**

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

<table>
<thead>
<tr>
<th>Transport of dangerous goods by land:</th>
</tr>
</thead>
<tbody>
<tr>
<td>With regard to 49 CFR on the Transport of Dangerous Goods:</td>
</tr>
<tr>
<td>14.1 UN number:                      Non-applicable</td>
</tr>
<tr>
<td>14.2 UN proper shipping name:        Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):     Non-applicable</td>
</tr>
<tr>
<td>Labels:                             Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:  Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:          No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td>Physico-Chemical properties:        see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

**SECTION 14: TRANSPORT INFORMATION**

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

| 14.1 UN number:                      Non-applicable |
| 14.2 UN proper shipping name:        Non-applicable |
| 14.3 Transport hazard class(es):     Non-applicable |
| Labels:                             Non-applicable |
| 14.4 Packing group, if applicable:  Non-applicable |
| 14.5 Environmental hazard:          No |
| 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
| Physico-Chemical properties:        see section 9 |
| 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable |

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

| 14.1 UN number:                      Non-applicable |
| 14.2 UN proper shipping name:        Non-applicable |
| 14.3 Transport hazard class(es):     Non-applicable |
| Labels:                             Non-applicable |
| 14.4 Packing group, if applicable:  Non-applicable |
| 14.5 Environmental hazard:          No |
| 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
| Physico-Chemical properties:        see section 9 |
| 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable |

Transport of dangerous goods by air:
With regard to IATA/ICAO 2018:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Ethanediol ; 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Ethanediol
The Toxic Substances Control Act (TSCA) : Anionic Surfactants ; Sodium Alkylsulfonates ; Ethanediol ; 2-butoxyethanol
Massachusetts RTK - Substance List: Ethanediol
New Jersey Worker and Community Right-to-Know Act: Ethanediol ; 2-butoxyethanol
New York RTK - Substance list: Ethanediol ; 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: Ethanediol ; 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Anionic Surfactants ; Sodium Alkylsulfonates ; Ethanediol ; 2-butoxyethanol
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Ethanediol ; 2-butoxyethanol
Rhode Island - Hazardous substances RTK: Ethanediol ; 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Ethanediol (5000 pounds)

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage
H302: Harmful if swallowed

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
SECTION 16: OTHER INFORMATION (continued)

Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF270 - Body Shampoo 270 High Lubricity

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
High lubricity detergent mixture for commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation
Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P332+P333: If skin irritation occurs: Get medical advice/attention

Substances that contribute to the classification:
Anionic Surfactants; Ethanediol; 2-butoxyethanol

Acute Toxicity Estimate (ATE mix):
35 % (oral), 38.89 % (dermal), 52.64 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Anionic Surfactants, Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Ethanediol, Acute Tox. 4: H302 - Warning</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>Sodium xylenesulphonate, Eye Irrit. 2: H319 - Warning</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol, Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319 - Warning; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 **Description of necessary measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation; however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 **Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

4.3 **Indication of immediate medical attention and special treatment needed, if necessary:**

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 **Suitable (and unsuitable) extinguishing media:**

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 **Specific hazards arising from the chemical:**
### SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

#### 5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

**6.2 Environmental precautions:**

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

**6.3 Methods and materials for containment and cleaning up:**

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

**6.4 Reference to other sections:**

See sections 8 and 13.

### SECTION 7: HANDLING AND STORAGE

#### 7.1 Precautions for safe handling:

**A.- Precautions for safe manipulation**

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

**B.- Technical recommendations for the prevention of fires and explosions**

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

**C.- Technical recommendations to prevent ergonomic and toxicological risks**

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

**D.- Technical recommendations to prevent environmental risks**

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

#### 7.2 Conditions for safe storage, including any incompatibilities:

**A.- Technical measures for storage**

- Minimum Temp.: -4 °F
- Maximum Temp.: 120 °F

**B.- General conditions for storage**

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

#### 7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>8-hour TWA PEL 0.75 ppm</td>
</tr>
<tr>
<td>CAS: 50-00-0</td>
<td>Ceiling Values - TWA PEL 2 ppm</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

#### 8.2 Appropriate engineering controls:

**A.** Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

**B.** Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

**C.** Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="#">Mandatory hand protection</a></td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

**D.** Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="#">Mandatory face protection</a></td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

**E.** Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

**F.** Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Opaque
- Color: Orange
- Odor: Not available
- Odour threshold: Non-applicable *

**Volutility:**
- Boiling point at atmospheric pressure: 237 °F
- Vapour pressure at 68 °F: 2163 Pa
- Vapour pressure at 122 °F: 85.21 (11.36 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1064.6 kg/m³
- Relative density at 68 °F: 1.065
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 9 - 10 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

9.2 Other information:
*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface tension at 68 °F</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Contact with air</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Increase in temperature</td>
<td>Precaution</td>
</tr>
<tr>
<td>Sunlight</td>
<td>Precaution</td>
</tr>
<tr>
<td>Humidity</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Category</th>
<th>Incompatible Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acids</td>
<td>Avoid strong acids</td>
</tr>
<tr>
<td>Water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Oxidising materials</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Combustible materials</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Others</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Formaldehyde (1); 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol CAS: 107-21-1</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 9530 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Sodium xylenesulphonate CAS: 1300-72-7</td>
<td>LD50 oral 7200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2270.22 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>40483.68 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>325.58 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethaneol CAS: 107-21-1</td>
<td>LC50 53000 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 51000 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 24000 mg/L (168 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethaneol</td>
<td>BOD5 0.47 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>COD 1.29 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.36</td>
<td>% Biodegradable 90 %</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethaneol</td>
<td>BCF 10 Pow Log -1.36 Potential Low</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3 Pow Log 0.83 Potential Low</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethaneol</td>
<td>Koc 0</td>
<td>Henry 1.327E-1 Pa m²/mol</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Conclusion Very High Dry soil No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surface tension 4.988E-2 N/m (77 °F) Moist soil No</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 0</td>
<td>Henry 1.621E-1 Pa m²/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High Dry soil No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F) Moist soil Yes</td>
<td></td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

- CONTINUED ON NEXT PAGE -
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Ethanediol; 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Ethanediol
The Toxic Substances Control Act (TSCA): Anionic Surfactants; Ethanediol; Sodium xylenesulphonate; 2-butoxyethanol
Massachusetts RTK - Substance List: Ethanediol
New Jersey Worker and Community Right-to-Know Act: Ethanediol; 2-butoxyethanol
New York RTK - Substance list: Ethanediol; 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: Ethanediol; 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Anionic Surfactants; Ethanediol; Sodium xylenesulphonate; 2-butoxyethanol
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Ethanediol; 2-butoxyethanol
Rhode Island - Hazardous substances RTK: Ethanediol; 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Ethanediol (5000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage
H315: Causes skin irritation

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
### SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>CL50</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW</td>
<td>Octanol-water partition coefficient</td>
</tr>
<tr>
<td>Koc</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF280 - Specialty Cleaner 280

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Liquid detergent mixture for commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Asp. Tox. 1: Aspiration hazard, Category 1, H304
Eye Dam. 1: Serious eye damage, Category 1, H318
Flam. Liq. 4: Flammable liquids, Category 4, H227
Repr. 1B: Reproductive toxicity, Category 1B, H360
Skin Irrit. 2: Skin irritation, Category 2, H315
Skin Sens. 1: Sensitisation, skin, Category 1, H317

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Acute Tox. 4: H302 - Harmful if swallowed
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Eye Dam. 1: H318 - Causes serious eye damage
Flam. Liq. 4: H227 - Combustible liquid
Repr. 1B: H360 - May damage fertility or the unborn child
Skin Irrit. 2: H315 - Causes skin irritation
Skin Sens. 1: H317 - May cause an allergic skin reaction

Precautionary statements:
P201: Obtain special instructions before use
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313: IF exposed or concerned: Get medical advice/attention
P370+P378: In case of fire: Use ABC powder extinguisher to put it out
P501: Dispose of contents and/or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification

Date of compilation: 3/6/2019 Version: 1
SECTION 2: HAZARD(S) IDENTIFICATION (continued)

Ethanediol; Pine oil; Ethoxylated Alcohol; 2-butoxyethanol

Acute Toxicity Estimate (ATE mix):
6.51 % (oral), 30.04 % (dermal), 44.04 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 107-21-1</td>
<td>Ethanolol</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 8002-09-3</td>
<td>Pine oil</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td></td>
<td>Asp. Tox. 1: H304; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Skin Sens. 1: H317 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>C-21 dibasic fatty acid, potassium salt</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 12179-04-3</td>
<td>Disodium tetraborate pentahydrate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2: H319; Repr. 1B: H360 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
## SECTION 4: FIRST-AID MEASURES (continued)

Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

### 4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

### 4.3 Indication of Immediate medical attention and special treatment needed, if necessary:

Non-applicable

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1 Suitable (and unsuitable) extinguishing media:

Combustible liquid. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

### 5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

### 5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

### 6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

### 6.3 Methods and materials for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

### 6.4 Reference to other sections:

See sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling:

**A.** Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.
B. - Technical recommendations for the prevention of fires and explosions

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for conditions and materials that should be avoided.

C. - Technical recommendations to prevent ergonomic and toxicological risks

PREGNANT WOMEN SHOULD NOT BE EXPOSED TO THIS PRODUCT. Transfer in fixed places that comply with the necessary security conditions (emergency showers and eyewash stations in close proximity), using personal protection equipment, especially on the hands and face (See section 8). Limit manual transfers to containers of small amounts. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. - Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A. - Technical measures for storage

Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B. - General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mandatory face protection" /></td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Work clothing" /></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td><img src="image" alt="Anti-slip work shoes" /></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Green
- Odor: Pine
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 251 °F
- Vapour pressure at 68 °F: 2095 Pa
- Vapour pressure at 122 °F: 82.81 (11.04 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1051 kg/m³
- Relative density at 68 °F: 1.051
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: <20.5 cSt
- Concentration: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>8 - 9 at 100 %</td>
</tr>
<tr>
<td>Vapour density at 68 °F</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water 68 °F</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Solubility in water at 68 °F</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Solubility properties</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

**Flammability:**
- Flash Point: 167 °F (ASTM D-92)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 **Other information:**
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 **Reactivity:**
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 **Chemical stability:**
Chemically stable under the conditions of storage, handling and use.

10.3 **Possibility of hazardous reactions:**
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 **Conditions to avoid:**
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Risk of combustion</td>
<td>Avoid direct impact</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 **Incompatible materials:**

<table>
<thead>
<tr>
<th>Material</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Avoid direct impact</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 **Hazardous decomposition products:**
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects:**

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3); Brilliant blue FCF (C.I.4290/C.I.Acid Blue 9) (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: May damage fertility or the unborn child.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
The consumption of a considerable dose can cause pulmonary damage.

**Other information:**
Non-applicable

**Specific toxicology information on the substances:**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>LD50 dermal 9530 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>1414 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>1060 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>11 mg/L (4 h)</td>
</tr>
<tr>
<td>Disodium tetraborate pentahydrate</td>
<td>LD50 oral</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 12179-04-3</td>
<td>3450 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Ethoxylated Alcohol</td>
<td>LD50 oral</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Pine oil</td>
<td>LD50 oral</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 8002-09-3</td>
<td>3200 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

#### Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2072.86 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>16479.47 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>136.79 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

#### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>LC50</td>
<td>Pinephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>53000 mg/L (96 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>51000 mg/L (48 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
<tr>
<td></td>
<td>24000 mg/L (168 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>1490 mg/L (96 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>1815 mg/L (48 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td></td>
<td>911 mg/L (72 h)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>BODS 0.47 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>COD 1.29 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD 0.36</td>
<td>% Biodegradable 90 %</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BODS 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>BCF 10</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Pow Log -1.36</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

#### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>Koc 0</td>
<td>Henry 1.327E-1 Pa·m²/mol</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 4.988E-2 N/m (77 °F)</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>It</td>
<td>1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>Very High</td>
</tr>
<tr>
<td></td>
<td>Dry soil</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>2.792E-2 N/m (77 °F)</td>
</tr>
<tr>
<td></td>
<td>Moist soil</td>
<td>Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Ethanediol; 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Ethanediol
The Toxic Substances Control Act (TSCA): Ethanediol; Ethoxylated Alcohol; C-21 dibasic fatty acid, potassium salt; 2-butoxyethanol
Massachusetts RTK - Substance List: Ethanediol
New Jersey Worker and Community Right-to-Know Act: Ethanediol; Pine oil; 2-butoxyethanol; Disodium tetraborate pentahydrate
New York RTK - Substance list: Ethanediol; Pine oil; 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: Ethanediol; 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Ethanediol; Pine oil; Ethoxylated Alcohol; C-21 dibasic fatty acid, potassium salt; 2-butoxyethanol
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: Ethanediol; 2-butoxyethanol
Rhode Island - Hazardous substances RTK: Ethanediol; 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Ethanediol (5000 pounds)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
SECTION 15: REGULATORY INFORMATION (continued)

The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage
H360: May damage fertility or the unborn child
H315: Causes skin irritation
H317: May cause an allergic skin reaction
H302: Harmful if swallowed
H304: May be fatal if swallowed and enters airways
H227: Combustible liquid

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 3: H226 - Flammable liquid and vapour
Flam. Liq. 4: H227 - Combustible liquid
Repr. 1B: H360 - May damage fertility or the unborn child
Skin Irrit. 2: H315 - Causes skin irritation
Skin Sens. 1: H317 - May cause an allergic skin reaction
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF300 - Polish Base Unscented 300

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   High foaming liquid mixtures for car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
   29 CFR 1910.1200:
   Danger
   Hazard statements:
   Eye Dam. 1: H318 - Causes serious eye damage
   Skin Irrit. 2: H315 - Causes skin irritation
   Precautionary statements:
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P302+P352: IF ON SKIN: Wash with plenty of soap and water
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor
   P332+P313: If skin irritation occurs: Get medical advice/attention

Substances that contribute to the classification:
Cocamidopropyl Betaine; 2-butoxyethanol; Quaternary ammonium compounds, benzyl-C12-16-alkyl(dimethyl, chlorides

Acute Toxicity Estimate (ATE mix):
25.14 % (oral), 26.82 % (dermal), 30.62 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
</table>
| CAS: Proprietary | Cocamidopropyl Betaine  
Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger | 15 - <35 % |
| CAS: 111-76-2 | 2-butoxyethanol  
Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning | 5 - <10 % |
| CAS: 68424-85-1 | Quaternary ammonium compounds, benzyl-C12-16-alkyl(dimethyl), chlorides  
Acute Tox. 4: H302+H312; Skin Corr. 1B: H314 - Danger | <5 % |

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
   Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
   Maintain order and cleanliness where dangerous products are used.
B. - Technical recommendations for the prevention of fires and explosions
   Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C. - Technical recommendations to prevent ergonomic and toxicological risks
   Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D. - Technical recommendations to prevent environmental risks
   It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F
B. - General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Glyceral</td>
<td>8-hour TWA PEL: 5 mg/m³</td>
</tr>
<tr>
<td>CAS: 56-81-5</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>Ethanol</td>
<td>8-hour TWA PEL: 1000 ppm, 1960 mg/m³</td>
</tr>
<tr>
<td>CAS: 64-17-5</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL: 50 ppm, 240 mg/m³</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

### 8.2 Appropriate engineering controls:
A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

- **Pictogram**
  - Mandatory hand protection

- **PPE**
  - Protective gloves against minor risks

- **Remarks**
  - Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

- **Pictogram**
  - Mandatory face protection

- **PPE**
  - Panoramic glasses against splash/projections.

- **Remarks**
  - Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)

E.- Bodily protection

- **Pictogram**
  - Work clothing

- **PPE**
  - Replace before any evidence of deterioration.

- **Remarks**
  - Anti-slip work shoes

- **PPE**
  - Replace before any evidence of deterioration.

F.- Additional emergency measures

---

*Date of compilation: 3/7/2019     Version: 1*
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 ºF: Liquid
Appearance: Opaque
Color: Pink
Odor: Fruity
Odour threshold: Non-applicable *

Volatility:
Boiling point at atmospheric pressure: 219 ºF
Vapour pressure at 68 ºF: 2326 Pa
Vapour pressure at 122 ºF: 91.84 (12.24 kPa)
Evaporation rate at 68 ºF: Non-applicable *

Product description:
Density at 68 ºF: Non-applicable *
Relative density at 68 ºF: Non-applicable *
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: 5 - 6 at 100 %
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.
Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicity information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides CAS: 68424-85-1</td>
<td>LD50 oral 344 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1100 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral 4741.91 mg/kg (Calculation method)</td>
<td>25.14 %</td>
</tr>
<tr>
<td>Dermal 7502.76 mg/kg (Calculation method)</td>
<td>26.82 %</td>
</tr>
<tr>
<td>Inhalation 114.41 mg/L (4 h) (Calculation method)</td>
<td>30.62 %</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyl(dimethyl), chlorides CAS: 68424-85-1</td>
<td>LC50 0.28 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa m²/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA) : Cocamidopropyl Betaine ; 2-butoxyethanol ; Quaternary ammonium compounds,
benzyl-C12-16-alkyldimethyl, chlorides
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Cocamidopropyl Betaine ; 2-butoxyethanol ; Quaternary ammonium compounds,
benzyl-C12-16-alkyldimethyl, chlorides
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the
individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension
and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).
Abbreviations and acronyms:
### SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>CL50</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW</td>
<td>Octanol-water partition coefficient</td>
</tr>
<tr>
<td>Koc</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF301 - Polish Base Raspberry 301

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
High foaming liquid mixtures for car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P332+P313: If skin irritation occurs: Get medical advice/attention

Substances that contribute to the classification:
Cocamidopropyl Betaine; 2-butoxyethanol; Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

Acute Toxicity Estimate (ATE mix):
31.57 % (oral), 33.08 % (dermal), 37.64 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**
Remainder components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Cocamidopropyl Betaine&lt;br&gt;Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol&lt;br&gt;Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 68424-85-1</td>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides&lt;br&gt;Acute Tox. 4: H302+H312; Skin Corr. 1B: H314 - Danger</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 **Description of necessary measures:**
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 **Most important symptoms/effects, acute and delayed:**
Acute and delayed effects are indicated in sections 2 and 11.

4.3 **Indication of immediate medical attention and special treatment needed, if necessary:**
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 **Suitable (and unsuitable) extinguishing media:**
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 **Specific hazards arising from the chemical:**
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 **Special protective equipment and precautions for fire-fighters:**
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>CAS: 56-81-5</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>Ethanol</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>CAS: 64-17-5</td>
<td>1900 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>240 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. - Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,….) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer's use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Opaque
- Color: Pink
- Odor: Fruity
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 219 °F
- Vapour pressure at 68 °F: 2329 Pa
- Vapour pressure at 122 °F: 91.96 (12.26 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: Non-applicable *
- Relative density at 68 °F: Non-applicable *
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 5 - 6 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3. IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicity information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyl(dimethyl), chlorides CAS: 68424-85-1</td>
<td>LD50 oral 344 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1100 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral 3902.57 mg/kg (Calculation method)</td>
<td>31.57 %</td>
</tr>
<tr>
<td>Dermal 6791.69 mg/kg (Calculation method)</td>
<td>33.08 %</td>
</tr>
<tr>
<td>Inhalation 113.38 mg/L (4 h) (Calculation method)</td>
<td>37.64 %</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides CAS: 68424-85-1</td>
<td>LC50 0.28 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>EC50 Non-applicable</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>BOD5 0.71 g O2/g Concentration 100 mg/L</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COD 2.2 g O2/g Period 14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32 % Biodegradable 96 %</td>
<td></td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>BCF 3</td>
</tr>
<tr>
<td></td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>Koc 8 Henry 1.621E-1 Pa·m³/mol</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conclusion Very High Dry soil No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F) Moist soil Yes</td>
<td></td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:
**SECTION 14: TRANSPORT INFORMATION (continued)**

| 14.1 | UN number: | Non-applicable |
| 14.2 | UN proper shipping name: | Non-applicable |
| 14.3 | Transport hazard class(es): | Non-applicable |
|      | Labels: | Non-applicable |
| 14.4 | Packing group, if applicable: | Non-applicable |
| 14.5 | Environmental hazard: | No |
| 14.6 | Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
|      | Physico-Chemical properties: | see section 9 |
| 14.7 | Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

| 14.1 | UN number: | Non-applicable |
| 14.2 | UN proper shipping name: | Non-applicable |
| 14.3 | Transport hazard class(es): | Non-applicable |
|      | Labels: | Non-applicable |
| 14.4 | Packing group, if applicable: | Non-applicable |
| 14.5 | Environmental hazard: | No |
| 14.6 | Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
|      | Physico-Chemical properties: | see section 9 |
| 14.7 | Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

| 14.1 | UN number: | Non-applicable |
| 14.2 | UN proper shipping name: | Non-applicable |
| 14.3 | Transport hazard class(es): | Non-applicable |
|      | Labels: | Non-applicable |
| 14.4 | Packing group, if applicable: | Non-applicable |
| 14.5 | Environmental hazard: | No |
| 14.6 | Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
|      | Physico-Chemical properties: | see section 9 |
| 14.7 | Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

**SECTION 15: REGULATORY INFORMATION**

| 15.1 | Safety, health and environmental regulations specific for the product in question: |
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA) : Cocamidopropyl Betaine ; 2-butoxyethanol ; Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Cocamidopropyl Betaine ; 2-butoxyethanol ; Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liqu. 4: H227 - Combustible liquid
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).
Abbreviations and acronyms:
### SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>CL50</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW</td>
<td>Octanol-water partition coefficient</td>
</tr>
<tr>
<td>Koc</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF311 - Polish Cherry Blue 311

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   High foaming liquid mixtures for car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1907 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Acute Tox. 4: H302 - Harmful if swallowed
   Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

   Precautionary statements:
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor
   P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:
   Chemical description: Aqueous mixture composed of chemical products for cleaning products
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 79-14-1</td>
<td>Glycollic acid</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H332; Eye Dam. 1: H318; Skin Corr. 1B: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Amine Oxide</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Imidazolines and Imidazoline Derivatives</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Skin Corr. 1C: H314; STOT RE 2: H373 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:

The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: -4 °F

Maximum Temp.: 120 °F

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
SECTION 7: HANDLING AND STORAGE (continued)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
<th>8-hour TWA PEL</th>
<th>Ceiling Values - TWA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td>50 ppm</td>
<td>240 mg/m³</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>NON-disposable chemical protective gloves</td>
<td>The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Face shield</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory complete body protection</td>
<td>Disposable clothing for protection against chemical risks</td>
<td>For professional use only. Clean periodically according to the manufacturer’s instructions.</td>
</tr>
<tr>
<td>Mandatory foot protection</td>
<td>Safety footwear for protection against chemical risk</td>
<td>Replace boots at any sign of deterioration. Use foot protection in accordance with manufacturer’s use limitations and OSHA standard 1910.136 (29CFR)</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

CONTINUOUS ON NEXT PAGE...
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Opaque
- Color: Blue
- Odor: Fruity
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 215 ºF
- Vapour pressure at 68 °F: 2337 Pa
- Vapour pressure at 122 °F: 92.35 (12.31 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1033.3 kg/m³
- Relative density at 68 °F: 1.033
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: <4 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 377 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3); Brilliant blue FCF (C.I.4290/C.I.Age Blue 9) (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral: 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal: 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation: 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Glycollic acid CAS: 79-14-1</td>
<td>LD50 oral: 2040 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal: Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation: 11 mg/L (4 h) (ATEi)</td>
<td></td>
</tr>
<tr>
<td>Imidazolines and Imidazoline Derivatives CAS: Proprietary</td>
<td>LD50 oral: 1085 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal: Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation: Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid CAS: 79-14-1</td>
<td>LC50: 164 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50: 144 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50: 44 mg/L (72 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amine Oxide</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LC50</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 0.55 mg/L</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Imidazolines and Imidazoline Derivatives</td>
<td>LC50 0.3 mg/L</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 0.163 mg/L</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 0.03 mg/L</td>
<td>Desmodesmus subspicatus</td>
<td>Algae</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L</td>
<td>Lepomis macrocyclus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Degradability</th>
<th>Biodegrability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>BOD5</td>
<td>Non-applicable</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>COD</td>
<td>Non-applicable</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>Non-applicable</td>
<td>% Biodegradable 86 %</td>
</tr>
<tr>
<td>Imidazolines and Imidazoline Derivatives</td>
<td>BOD5</td>
<td>Non-applicable</td>
<td>Concentration Non-applicable</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD</td>
<td>Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>Non-applicable</td>
<td>% Biodegradable 82 %</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>Pow Log -1.11</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imidazolines and Imidazoline Derivatives</td>
<td>Koc 125200</td>
<td>Henry 6E-9 Pa m³/mol</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Conclusion Immobile</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil Non-applicable</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

- CONTINUED ON NEXT PAGE -
**SECTION 13: DISPOSAL CONSIDERATIONS (continued)**

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

**SECTION 14: TRANSPORT INFORMATION**

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: Non-applicable</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

**SECTION 15: REGULATORY INFORMATION**

15.1 Safety, health and environmental regulations specific for the product in question:

- CONTINUED ON NEXT PAGE -
### SECTION 15: REGULATORY INFORMATION (continued)

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313)</td>
<td>2-butoxyethanol</td>
</tr>
<tr>
<td>California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>The Toxic Substances Control Act (TSCA)</td>
<td>Glycollic acid; Amine Oxide; Imidazolines and Imidazoline Derivatives; 2-butoxyethanol</td>
</tr>
<tr>
<td>Massachusetts RTK - Substance List</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>New Jersey Worker and Community Right-to-Know Act</td>
<td>2-butoxyethanol</td>
</tr>
<tr>
<td>New York RTK - Substance list</td>
<td>2-butoxyethanol</td>
</tr>
<tr>
<td>Pennsylvania Worker and Community Right-to-Know Law</td>
<td>2-butoxyethanol</td>
</tr>
<tr>
<td>CANADA-Domestic Substances List (DSL)</td>
<td>Glycollic acid; Amine Oxide; Imidazolines and Imidazoline Derivatives; 2-butoxyethanol</td>
</tr>
<tr>
<td>CANADA-Non-Domestic Substances List (NDSL)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>NTP (National Toxicology Program)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Minnesota - Hazardous substances ERTK</td>
<td>2-butoxyethanol</td>
</tr>
<tr>
<td>Rhode Island - Hazardous substances RTK</td>
<td>2-butoxyethanol</td>
</tr>
<tr>
<td>Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

**Other legislation:**

- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

### SECTION 16: OTHER INFORMATION

**Legislation related to safety data sheets:**

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

**Texts of the legislative phrases mentioned in section 2:**

- H302: Harmful if swallowed
- H314: Causes severe skin burns and eye damage
- H318: Causes serious eye damage

**Texts of the legislative phrases mentioned in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**29 CFR 1910.1200:**

- Acute Tox. 4: H302 - Harmful if swallowed
- Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
- Acute Tox. 4: H332 - Harmful if inhaled
- Eye Dam. 1: H318 - Causes serious eye damage
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flam. Liq. 4: H227 - Combustible liquid
- Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
- Skin Corr. 1C: H314 - Causes severe skin burns and eye damage
- Skin Irrit. 2: H315 - Causes skin irritation
- STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral)

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**

- CONTINUED ON NEXT PAGE -
SECTION 16: OTHER INFORMATION (continued)

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF312 - Polish Cherry Red 312

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   High foaming liquid mixtures for car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
   29 CFR 1910.1200:
   Danger
   Hazard statements:
   Acute Tox. 4: H302 - Harmful if swallowed
   Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
   Precautionary statements:
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor
   P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:
   Chemical description: Aqueous mixture composed of chemical products for cleaning products

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td><strong>Imidazolines and Imidazoline Derivatives</strong>&lt;br&gt;Acute Tox. 4: H302; Skin Corr. 1C: H314; STOT RE 2: H373 - Danger</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td><strong>Glycollic acid</strong>&lt;br&gt;Acute Tox. 4: H332; Eye Dam. 1: H318; Skin Corr. 1B: H314 - Danger</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td><strong>2-butoxyethanol</strong>&lt;br&gt;Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td><strong>Amine Oxide</strong>&lt;br&gt;Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 **Description of necessary measures:**
Request medical assistance immediately, showing the SDS of this product.

   **By inhalation:**
   This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

   **By skin contact:**
   Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

   **By eye contact:**
   Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

   **By ingestion/aspiration:**
   Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 **Most important symptoms/effects, acute and delayed:**
Acute and delayed effects are indicated in sections 2 and 11.

4.3 **Indication of immediate medical attention and special treatment needed, if necessary:**
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 **Suitable (and unsuitable) extinguishing media:**
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 **Specific hazards arising from the chemical:**

- CONTINUED ON NEXT PAGE -
### SECTION 5: FIRE-FIGHTING MEASURES (continued)

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 **Special protective equipment and precautions for fire-fighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures:**

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 **Environmental precautions:**

The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 **Methods and materials for containment and cleaning up:**

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 **Reference to other sections:**

See sections 8 and 13.

### SECTION 7: HANDLING AND STORAGE

7.1 **Precautions for safe handling:**

A.- **Precautions for safe manipulation**

- Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
- Maintain order and cleanliness where dangerous products are used.

B.- **Technical recommendations for the prevention of fires and explosions**

- Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- **Technical recommendations to prevent ergonomic and toxicological risks**

- Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- **Technical recommendations to prevent environmental risks**

- It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 **Conditions for safe storage, including any incompatibilities:**

A.- **Technical measures for storage**

- Minimum Temp.: -4 °F
- Maximum Temp.: 120 °F

B.- **General conditions for storage**

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 **Specific end use(s):**
SECTION 7: HANDLING AND STORAGE (continued)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>NON-disposable chemical protective gloves</td>
<td>The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Face shield</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposable clothing</td>
<td>for protection against chemical risks</td>
<td>For professional use only. Clean periodically according to the manufacturer’s instructions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory complete body protection</td>
<td>Safety footwear for protection against chemical risk</td>
<td>Replace boots at any sign of deterioration. Use foot protection in accordance with manufacturer’s use limitations and OSHA standard 1910.136 (29CFR)</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>ISO 3864-1:2002</td>
<td>DIN 12 899</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ISO 3864-1:2002</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 ºF: Liquid
Appearance: Opaque
Color: Red
Odor: Characteristic
Odor threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: 218 ºF
Vapour pressure at 68 ºF: 2322 Pa
Vapour pressure at 122 ºF: 91.77 * (12.24 kPa)
Evaporation rate at 68 ºF: Non-applicable *

Product description:
Density at 68 ºF: 1027.9 kg/m³
Relative density at 68 ºF: 1.028
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: <4 at 100 %
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 377 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Glycollic acid</td>
<td>LD50 oral 2040 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h) (ATEi)</td>
<td></td>
</tr>
<tr>
<td>Imidazolines and Imidazoline Derivatives</td>
<td>LD50 oral 1085 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imidazolines and Imidazoline Derivatives</td>
<td>LC50 0.3 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 0.163 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 0.03 mg/L (72 h)</td>
<td>Desmodesmus subspicatus</td>
<td>Algae</td>
</tr>
</tbody>
</table>
# SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>LC50 164 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 141 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 44 mg/L (72 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>Amine Oxide</td>
<td>LC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 0.55 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
</tbody>
</table>

## 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imidazolines and Imidazoline Derivatives</td>
<td>BOD5 Non-applicable</td>
<td>Concentration Non-applicable</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td>Glycollic acid</td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 82 %</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>BOD5 Non-applicable</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD Non-applicable</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 86 %</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

## 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>Pow Log -1.11</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

## 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imidazolines and Imidazoline Derivatives</td>
<td>Koc 125200</td>
<td>Henry 6E-9 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Conclusion Immobile</td>
<td>Dry soil Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil Non-applicable</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

## 12.5 Results of PBT and vPvB assessment:

Non-applicable

## 12.6 Other adverse effects:

Not described

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

---

Date of compilation: 3/15/2019            Version: 1
### SECTION 13: DISPOSAL CONSIDERATIONS (continued)

| 40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE |

### SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
### SECTION 15: REGULATORY INFORMATION (continued)

<table>
<thead>
<tr>
<th>Legislation related to safety data sheets:</th>
</tr>
</thead>
<tbody>
<tr>
<td>This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets</td>
</tr>
</tbody>
</table>

### Texts of the legislative phrases mentioned in section 2:

<table>
<thead>
<tr>
<th>Acute Tox. 4: H302 - Harmful if swallowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302: Harmful if swallowed</td>
</tr>
<tr>
<td>H314: Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H318: Causes serious eye damage</td>
</tr>
</tbody>
</table>

### Texts of the legislative phrases mentioned in section 3:

<table>
<thead>
<tr>
<th>Eye Dam. 1: H318 - Causes serious eye damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302: Harmful if swallowed, in contact with skin or if inhaled</td>
</tr>
<tr>
<td>Acute Tox. 4: H332 - Harmful if inhaled</td>
</tr>
<tr>
<td>Skin Corr. 1B: H314 - Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>Skin Corr. 1C: H314 - Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>Skin Irrit. 2: H315 - Causes skin irritation</td>
</tr>
<tr>
<td>STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral)</td>
</tr>
</tbody>
</table>

### Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

### Principal bibliographical sources:

Occupational Safety & Health Administration (OSHA).

### Abbreviations and acronyms:

- CONTINUED ON NEXT PAGE -
SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>CL50</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW</td>
<td>Octanol-water partition coefficient</td>
</tr>
<tr>
<td>Koc</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
**SECTION 1: IDENTIFICATION**

1.1 GHS Product identifier: UF313 - Polish Cherry Yellow 313

1.2 Recommended use of the chemical and restrictions on use:

   Relevant uses: Chemical cleaning products
   High foaming liquid mixtures for car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

**SECTION 2: HAZARD(S) IDENTIFICATION**

2.1 Classification of the substance or mixture:

   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:

   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Acute Tox. 4: H302 - Harmful if swallowed
   Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

   Precautionary statements:
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor
   P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

2.3 Other hazards which do not result in classification:
   Non-applicable

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

3.1 Substances:
   Non-applicable

3.2 Mixtures:
   Chemical description: Aqueous mixture composed of chemical products for cleaning products
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td><strong>Imidazolines and Imidazoline Derivatives</strong></td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Skin Corr. 1C: H314; STOT RE 2: H373 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td><strong>Glycollic acid</strong></td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H332; Eye Dam. 1: H318; Skin Corr. 1B: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td><strong>2-butoxyethanol</strong></td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td><strong>Amine Oxide</strong></td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Substance</th>
<th>8-hour TWA PEL</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>50 ppm</td>
<td>240 mg/m³ PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>NON-disposable chemical protective gloves</td>
<td>The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Face shield</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory complete body protection</td>
<td>Disposable clothing for protection against chemical risks</td>
<td>For professional use only. Clean periodically according to the manufacturer’s instructions.</td>
</tr>
<tr>
<td>Mandatory foot protection</td>
<td>Safety footwear for protection against chemical risk</td>
<td>Replace boots at any sign of deterioration. Use foot protection in accordance with manufacturer’s use limitations and OSHA standard 1910.136 (29CFR)</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

- CONTINUED ON NEXT PAGE -
### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

**Environmental exposure controls:**
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Opaque
- Color: Yellow
- Odor: Characteristic
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 218 °F
- Vapour pressure at 68 °F: 2322 Pa
- Vapour pressure at 122 °F: 91.79 (12.24 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1025.7 kg/m³
- Relative density at 68 °F: 1.026
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: <4
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 377 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *
*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.
Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Glycollic acid</td>
<td>LD50 oral 2040 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h) (ATEi)</td>
<td></td>
</tr>
<tr>
<td>Imidazolines and Imidazoline Derivatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 oral 1085 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imidazolines and Imidazoline Derivatives</td>
<td>LC50 0.3 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 0.163 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 0.03 mg/L (72 h)</td>
<td>Desmodesmus subspicatus</td>
<td>Algae</td>
</tr>
</tbody>
</table>
### SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>LC50 164 mg/L</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>EC50 141 mg/L</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 44 mg/L</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>Amine Oxide</td>
<td>LC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 0.55 mg/L</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imidazolines and Imidazoline Derivatives</td>
<td>BOD5 Non-applicable</td>
<td>Concentration Non-applicable</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 82 %</td>
</tr>
<tr>
<td>Glycollic acid</td>
<td>BOD5 Non-applicable</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>COD Non-applicable</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 86 %</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>Pow Log -1.11</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

#### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imidazolines and Imidazoline Derivatives</td>
<td>Koc 125200</td>
<td>Henry 6E-9 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Conclusion Immobile</td>
<td>Dry soil Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil Non-applicable</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

#### 12.5 Results of PBT and vPvB assessment:

Non-applicable

#### 12.6 Other adverse effects:

Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

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Date of compilation: 3/15/2019 Version: 1
### SECTION 13: DISPOSAL CONSIDERATIONS (continued)

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

### SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**
With regard to 49 CFR on the Transport of Dangerous Goods:

- **14.1 UN number:** Non-applicable
- **14.2 UN proper shipping name:** Non-applicable
- **14.3 Transport hazard class(es):** Non-applicable
  
<table>
<thead>
<tr>
<th>Labels</th>
<th>Non-applicable</th>
</tr>
</thead>
</table>
- **14.4 Packing group, if applicable:** Non-applicable
- **14.5 Environmental hazard:** No
- **14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**
  
  | Physico-Chemical properties | see section 9 |
- **14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable

**Transport of dangerous goods by sea:**
With regard to IMDG 38-16:

- **14.1 UN number:** Non-applicable
- **14.2 UN proper shipping name:** Non-applicable
- **14.3 Transport hazard class(es):** Non-applicable
  
<table>
<thead>
<tr>
<th>Labels</th>
<th>Non-applicable</th>
</tr>
</thead>
</table>
- **14.4 Packing group, if applicable:** Non-applicable
- **14.5 Environmental hazard:** No
- **14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**
  
  | Physico-Chemical properties | see section 9 |
- **14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable

**Transport of dangerous goods by air:**
With regard to IATA/ICAO 2019:

- **14.1 UN number:** Non-applicable
- **14.2 UN proper shipping name:** Non-applicable
- **14.3 Transport hazard class(es):** Non-applicable
  
<table>
<thead>
<tr>
<th>Labels</th>
<th>Non-applicable</th>
</tr>
</thead>
</table>
- **14.4 Packing group, if applicable:** Non-applicable
- **14.5 Environmental hazard:** No
- **14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**
  
  | Physico-Chemical properties | see section 9 |
- **14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Imidazolines and Imidazoline Derivatives; Glycolic acid; 2-butoxyethanol; Amine Oxide
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Imidazolines and Imidazoline Derivatives; Glycolic acid; 2-butoxyethanol; Amine Oxide
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H302: Harmful if swallowed
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H303+H332 - Harmful if swallowed, in contact with skin or if inhaled
Acute Tox. 4: H332 - Harmful if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Corr. 1C: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral)

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
**SECTION 16: OTHER INFORMATION (continued)**

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF314 - Polish Cherry White 314
New and Improved Since September 2019

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
High foaming liquid mixtures for car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Acute Tox. 4: H302 - Harmful if swallowed
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Additional labeling:
Keep out of the reach of children

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)**

3.2 Mixtures:

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Imidazolines and Imidazoline Derivatives</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>Glycollic acid</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Amine Oxide</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

---

**SECTION 4: FIRST-AID MEASURES**

4.1 **Description of necessary measures:**
Request medical assistance immediately, showing the SDS of this product.

**By inhalation:**
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 **Most important symptoms/effects, acute and delayed:**
Acute and delayed effects are indicated in sections 2 and 11.

4.3 **Indication of immediate medical attention and special treatment needed, if necessary:**
Non-applicable

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**SECTION 5: FIRE-FIGHTING MEASURES**

5.1 **Suitable (and unsuitable) extinguishing media:**
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use full jet water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
SECTION 7: HANDLING AND STORAGE (continued)

B. General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm, Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>NON-disposable chemical protective gloves</td>
<td>The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Face shield</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory complete body protection</td>
<td>Disposable clothing for protection against chemical risks</td>
<td>For professional use only. Clean periodically according to the manufacturer’s instructions.</td>
</tr>
<tr>
<td>Mandatory foot protection</td>
<td>Safety footwear for protection against chemical risk</td>
<td>Replace boots at any sign of deterioration. Use foot protection in accordance with manufacturer’s use limitations and OSHA standard 1910.136 (29CFR)</td>
</tr>
</tbody>
</table>
**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

**National volatile organic compound emission standards (40 CFR Part 59):**

- V.O.C. (Subpart C - Consumer): 6.06 % weight
- V.O.C. (Coatings) at 68 °F: 62.14 kg/m³ (62.14 g/L)

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties:**

For complete information see the product datasheet.

**Appearance:**

- Physical state at 68 °F: Liquid
- Appearance: Opaque
- Color: White
- Odor: Fruity
- Odour threshold: Non-applicable *

**Volvatility:**

- Boiling point at atmospheric pressure: 218 °F
- Vapour pressure at 68 °F: 2322 Pa
- Vapour pressure at 122 °F: 12236.4 Pa (12.24 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**

- Density at 68 °F: 1024.6 kg/m³
- Relative density at 68 °F: 1.025
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: <4 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**

- Flash Point: Non Flammable (>199.4 °F)

*Not relevant due to the nature of the product, not providing information property of its hazards.*

Date of compilation: 9/4/2019                        Version: 1
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>377 ºF</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive</td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>9.2 Other information</td>
<td></td>
</tr>
<tr>
<td>Surface tension at 68 ºF</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No applicable</td>
<td>No applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Category</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No applicable</td>
<td>No applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
  - Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
  - Corrosivity/Irritation: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other Information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Glycollic acid</td>
<td>LD50 oral 2040 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h) (ATEi)</td>
<td></td>
</tr>
<tr>
<td>Imidazolines and Imidazoline Derivatives</td>
<td>LD50 oral 1085 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
### SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imidazolines and Imidazoline Derivatives</td>
<td>LC50 0.3 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 0.163 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 0.03 mg/L (72 h)</td>
<td>Desmodesmus subspicatus</td>
<td>Algae</td>
</tr>
<tr>
<td>Glycollic acid</td>
<td>LC50 164 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>EC50 141 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 44 mg/L (72 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
<tr>
<td></td>
<td>EC50 44 mg/L (72 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>Amine Oxide</td>
<td>LC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 0.55 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imidazolines and Imidazoline Derivatives</td>
<td>BOD5 Non-applicable</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD Non-applicable</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable</td>
</tr>
<tr>
<td>Glycollic acid</td>
<td>BOD5 Non-applicable</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>COD Non-applicable</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable</td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>BCF</th>
<th>Pow Log</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>3</td>
<td>-1.11</td>
<td>Low</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>3</td>
<td>0.83</td>
<td>Low</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Koc</th>
<th>Henry</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imidazolines and Imidazoline Derivatives</td>
<td>125200</td>
<td></td>
<td>6E-9 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Conclusion</td>
<td>Non-applicable</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>Non-applicable</td>
<td>Moist soil</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8</td>
<td>Henry</td>
<td>1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion</td>
<td>Very High</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>2.729E-2 N/m (77 °F)</td>
<td>Moist soil</td>
</tr>
</tbody>
</table>

#### 12.5 Results of PBT and vPvB assessment:

- Non-applicable

#### 12.6 Other adverse effects:

- Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.
### SECTION 13: DISPOSAL CONSIDERATIONS (continued)

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261 - IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

### SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1 UN number:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

- CONTINUED ON NEXT PAGE -
**SECTION 15: REGULATORY INFORMATION**

15.1 Safety, health and environmental regulations specific for the product in question:

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA) : Imidazolines and Imidazoline Derivatives ; Glycollic acid ; 2-butoxyethanol ; Amine Oxide
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Imidazolines and Imidazoline Derivatives ; Glycollic acid ; 2-butoxyethanol ; Amine Oxide
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

**Other legislation:**

The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

**SECTION 16: OTHER INFORMATION**

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H302: Harmful if swallowed
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Acute Tox. 4: H332 - Harmful if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Corr. 1C: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral)

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:

- CONTINUED ON NEXT PAGE -
**SECTION 16: OTHER INFORMATION (continued)**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>CL50</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW</td>
<td>Octanol-water partition coefficient</td>
</tr>
<tr>
<td>Koc</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, it is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
UF341 - Conditioner Cherry Blue 341

Safety data sheet
according to 29 CFR 1910.1200

UF341 - Conditioner Cherry Blue 341

SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF341 - Conditioner Cherry Blue 341

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
High foaming liquid mixtures for car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P332+P313: If skin irritation occurs: Get medical advice/attention

Substances that contribute to the classification
Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate

Acute Toxicity Estimate (ATE mix):
4.94 % (oral), 27.64 % (dermal), 27.64 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

- CONTINUED ON NEXT PAGE -
### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

### SECTION 4: FIRST-AID MEASURES

**4.1 Description of necessary measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

**4.2 Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

**4.3 Indication of immediate medical attention and special treatment needed, if necessary:**

Non-applicable

### SECTION 5: FIRE-FIGHTING MEASURES

**5.1 Suitable (and unsuitable) extinguishing media:**

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

**5.2 Specific hazards arising from the chemical:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

**5.3 Special protective equipment and precautions for fire-fighters:**

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B. General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substances whose occupational exposure limits have to be monitored in the workplace</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Ceiling Values - TWA PEL</td>
<td>240 mg/m³</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>Ceiling Values - TWA PEL</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands
   Mandatory hand protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**

Physical state at 68 ºF: Liquid
Appearance: Translucent
Color: Blue
Odor: Fruity
Odour threshold: Non-applicable *

**Volutility:**

Boiling point at atmospheric pressure: 225 ºF
Vapour pressure at 68 ºF: 2284 Pa
Vapour pressure at 122 ºF: 90.28 (12.04 kPa)
Evaporation rate at 68 ºF: Non-applicable *

**Product description:**

Density at 68 ºF: 1038.2 kg/m³
Relative density at 68 ºF: 1.038
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: 9 at 100 %
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

**Flammability:**

Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

**Explosive:**

Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:

Surface tension at 68 ºF: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

CONTINUED ON NEXT PAGE
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3); Brilliant blue FCF (C.I.4290/C.I.Acid Blue 9) (3); Benzyl acetate (3); Coumarin (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
  - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
  - Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
  Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
  - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
  - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
  Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L</td>
<td>Rat</td>
</tr>
<tr>
<td>Alkybenzyl Sodium Sulfonate</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2094.61 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>6788.22 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>70.44 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
<td></td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td>Potential Low</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -1.3</td>
</tr>
<tr>
<td>Potential Low</td>
<td></td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

- CONTINUED ON NEXT PAGE -
## SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
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</tr>
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<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

## SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

- CONTINUED ON NEXT PAGE -
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA) : Alkylbenzyl Sodium Sulfonate ; 2-butoxyethanol ; Tetrasodium ethylenediaminetetraacetate
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate ; 2-butoxyethanol ; Tetrasodium ethylenediaminetetraacetate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
TSCA
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
SECTION 16: OTHER INFORMATION (continued)

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF342 - Conditioner Cherry Red 342

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   High foaming liquid mixtures for car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
   29 CFR 1910.1200:
   Danger
   
   Hazard statements:
   Eye Dam. 1: H318 - Causes serious eye damage
   Skin Irrit. 2: H315 - Causes skin irritation

   Precautionary statements:
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P302+P352: IF ON SKIN: Wash with plenty of soap and water
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor
   P332+P313: If skin irritation occurs: Get medical advice/attention

   Substances that contribute to the classification
   Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate

   Acute Toxicity Estimate (ATE mix):
   3.06 % (oral), 25.76 % (dermal), 25.76 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 **Description of necessary measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By Inhalation:**

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 **Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

4.3 **Indication of immediate medical attention and special treatment needed, if necessary:**

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 **Suitable (and unsuitable) extinguishing media:**

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 **Specific hazards arising from the chemical:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 **Special protective equipment and precautions for fire-fighters:**

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures:**

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

**6.2 Environmental precautions:**

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

**6.3 Methods and materials for containment and cleaning up:**

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

**6.4 Reference to other sections:**

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

**7.1 Precautions for safe handling:**

A.- Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

**7.2 Conditions for safe storage, including any incompatibilities:**

A.- Technical measures for storage

Minimum Temp.: -4 °F

Maximum Temp.: 120 °F

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

**7.3 Specific end use(s):**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>240 mg/m³</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>2 mg/m³</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td></td>
</tr>
</tbody>
</table>

#### 8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>🖐️ Hand</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>👉 Eyes</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>🧵 Clothing</td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>⚠️ Slip</td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
</tr>
<tr>
<td></td>
<td>ISO 3864-1:2002</td>
</tr>
<tr>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
<tr>
<td></td>
<td>ISO 3864-1:2002</td>
</tr>
</tbody>
</table>

Environmental exposure controls:

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Liquid
Appearance: Translucent
Color: Red
Odor: Fruity
Odor threshold: Non-applicable *

Volatility:
Boiling point at atmospheric pressure: 226 °F
Vapour pressure at 68 °F: 2281 Pa
Vapour pressure at 122 °F: 90.18 (12.02 kPa)
Evaporation rate at 68 °F: Non-applicable *

Product description:
Density at 68 °F: 1040.8 kg/m³
Relative density at 68 °F: 1.041
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: Non-applicable *
Concentration: Non-applicable *
pH: 8 - 10 at 100 %
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 °F)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 377 °F
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling, and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Avoidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Contact with air</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Increase in temperature</td>
<td>Precaution</td>
</tr>
<tr>
<td>Sunlight</td>
<td>Precaution</td>
</tr>
<tr>
<td>Humidity</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Category</th>
<th>Incompatible materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acids</td>
<td>Avoid strong acids</td>
</tr>
<tr>
<td>Water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Oxidising materials</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Combustible materials</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Others</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3); Benzyl acetate (3); Coumarin (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Alkylbenzyl Sodium Sulfonate CAS: Proprietary</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate CAS: 64-02-8</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2094.61 mg/kg (Calculation method) 3.06 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>6964.58 mg/kg (Calculation method) 25.76 %</td>
</tr>
<tr>
<td>Inhalation</td>
<td>72.27 mg/L (4 h) (Calculation method) 25.76 %</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -1.13</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.27E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:
14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organisation  
COD: Chemical Oxygen Demand  
BOD5: 5-day biochemical oxygen demand  
BCF: Bioconcentration factor  
LD50: Lethal Dose 50  
CL50: Lethal Concentration 50  
EC50: Effective concentration 50  
Log-POW: Octanol-water partition coefficient  
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).

END OF SAFETY DATA SHEET
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF343 - Conditioner Cherry Yellow 343

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products
High foaming liquid mixtures for car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315
STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

2.2 Label elements:

29 CFR 1910.1200:

Danger

Hazard statements:
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Precautionary statements:
P271: Use only outdoors or in a well-ventilated area
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P403+P233: Store in a well-ventilated place. Keep container tightly closed
P501: Dispose of contents and/or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Alkylbenzyl Sodium Sulfonate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate; C.I. Acid Yellow 36

Acute Toxicity Estimate (ATE mix):
5.75 % (oral), 30.63 % (dermal), 30.63 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Alkylbenzyl Sodium Sulfonate Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 587-98-4</td>
<td>C.I. Acid Yellow 36 Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 **Specific hazards arising from the chemical:**
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 **Special protective equipment and precautions for fire-fighters:**
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures:**
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 **Environmental precautions:**
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 **Methods and materials for containment and cleaning up:**
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 **Reference to other sections:**
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 **Precautions for safe handling:**
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 **Conditions for safe storage, including any incompatibilities:**
A.- Technical measures for storage
Minimum Temp.: -4 ºF
Maximum Temp.: 120 ºF
SECTION 7: HANDLING AND STORAGE (continued)

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
<td>Ceiling Values - TWA 240 mg/m³</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Translucent
- Color: Yellow
- Odor: Fruity
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 225 °F
- Vapour pressure at 68 °F: 2284 Pa
- Vapour pressure at 122 °F: 90.29 (12.04 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1044.9 kg/m³
- Relative density at 68 °F: 1.045
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 8 - 10 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

**9.2 Other information:**
- Surface tension at 68 ºF: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

**10.1 Reactivity:**
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

**10.2 Chemical stability:**
Chemically stable under the conditions of storage, handling and use.

**10.3 Possibility of hazardous reactions:**
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

**10.4 Conditions to avoid:**
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

**10.5 Incompatible materials:**

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

**10.6 Hazardous decomposition products:**
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

**11.1 Information on toxicological effects:**
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:
- A- Ingestion (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Alkylbenzyl Sodium Sulfonate</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.I.Acid Yellow 36</td>
<td>LD50 oral</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 587-98-4</td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2116.78 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>6507.74 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>67.53 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 1</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -1.13</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 4</td>
<td>Henry 1.62E-1 Pa·m²/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m²/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
**SECTION 13: DISPOSAL CONSIDERATIONS (continued)**

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

**SECTION 14: TRANSPORT INFORMATION**

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA) : Alkylbenzyl Sodium Sulfonate ; 2-butoxyethanol ; Tetrasodium
ethylediaminetetraacetate ; C.I.Acid Yellow 36
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
   New York RTK - Substance list: 2-butoxyethanol
   Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
   CANADA-Domestic Substances List (DSL): Alkylbenzyl Sodium Sulfonate ; 2-butoxyethanol ; Tetrasodium
ethylediaminetetraacetate ; C.I.Acid Yellow 36
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: 2-butoxyethanol
   Rhode Island - Hazardous substances RTK: 2-butoxyethanol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

   Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

   Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage
H335: May cause respiratory irritation

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF380 - Brilliant Blue 380

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Dye additive for commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

2.2 Label elements:
29 CFR 1910.1200:
None

Acute Toxicity Estimate (ATE mix):
8.05 % (oral), 8.05 % (dermal), 8.05 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

- CONTINUED ON NEXT PAGE -
SECTION 4: FIRST-AID MEASURES (continued)

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:
Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (see section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

- CONTINUED ON NEXT PAGE -
SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
   Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically
   sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
   Maintain order and cleanliness where dangerous products are used.
B. - Technical recommendations for the prevention of fires and explosions
   Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow
   speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information
   on conditions and materials that should be avoided.
C. - Technical recommendations to prevent ergonomic and toxicological risks
   Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D. - Technical recommendations to prevent environmental risks
   It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
B. - General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this
product.

Minimum Temp.: -4 ºF
Maximum Temp.: 120 ºF

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>8-hour TWA PEL 0.75 ppm</td>
</tr>
<tr>
<td>CAS: 50-00-0</td>
<td>Ceiling Values - TWA PEL 2 ppm</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. - Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal
   Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by
   the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the
   information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing
   application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard
   assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance
B. - Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.
C. - Specific protection for the hands
**SECTION 8: EXPOSURE CONTROLS/PERSOAL PROTECTION (continued)**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="image">Mandatory hand protection</a></td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application.

**D. Ocular and facial protection**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="image">Mandatory face protection</a></td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

**E. Bodily protection**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

**F. Additional emergency measures**

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

9.1 **Information on basic physical and chemical properties:**

For complete information see the product datasheet.

**Appearance:**

Physical state at 68 °F: Liquid
Appearance: Opaque
Color: Blue
Odor: Characteristic
Odour threshold: Non-applicable *

**Volatility:**

Boiling point at atmospheric pressure: 215 °F
Vapour pressure at 68 °F: 2352 Pa
Vapour pressure at 122 °F: 92.61 (12.35 kPa)
Evaporation rate at 68 °F: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*

- CONTINUED ON NEXT PAGE -
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Product description:
Density at 68 ºF: 1025.3 kg/m³
Relative density at 68 ºF: 1.025
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: 8 - 10 at 100 %
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

Other information:
Surface tension at 68 ºF: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalies or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
SECTION 10: STABILITY AND REACTIVITY (continued)

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
   - Contact with the eyes: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
   - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
     IARC: Formaldehyde (1); 2-butoxyethanol (3); Brilliant blue FCF (C.I.4290/C.I.Acid Blue 9) (3)
   - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
   - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
   - Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
   - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>4051.76 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>30372.49 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>315.19 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>BCF Pow Log</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>3 0.83</td>
<td>Low</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
**SECTION 13: DISPOSAL CONSIDERATIONS (continued)**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

---

**SECTION 14: TRANSPORT INFORMATION**

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

- CONTINUED ON NEXT PAGE -
### SECTION 14: TRANSPORT INFORMATION (continued)

| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group, if applicable: | Non-applicable |
| 14.5 Environmental hazard: | No |
| 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
| Physico-Chemical properties: | see section 9 |

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
- The Toxic Substances Control Act (TSCA) : 2-butoxyethanol
- Massachusetts RTK - Substance List: Non-applicable
- New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
- New York RTK - Substance list: 2-butoxyethanol
- Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
- CANADA-Domestic Substances List (DSL): 2-butoxyethanol
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: 2-butoxyethanol
- Rhode Island - Hazardous substances RTK: 2-butoxyethanol
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

### SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
- Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flam. Liq. 4: H227 - Combustible liquid
- Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

- CONTINUED ON NEXT PAGE -
### SECTION 16: OTHER INFORMATION (continued)

**Principal bibliographical sources:**
- Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF381 - Radiant Red 381

1.2 Recommended use of the chemical and restrictions on use:
- Relevant uses: Chemical cleaning products
- Dye additive for commercial car washes.
- Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
- While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

2.2 Label elements:

2.3 Other hazards which do not result in classification:
- Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
- Non-applicable

3.2 Mixtures:
- Chemical description: Aqueous mixture composed of chemical products for cleaning products
- Components:
  - Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 1300-72-7</td>
<td>Sodium xylenesulphonate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2; H319 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4; H302+H312+H332; Eye Irrit. 2; H319; Flam. Liq. 4; H227; Skin Irrit. 2; H315 - Warning</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
SECTION 4: FIRST-AID MEASURES (continued)

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**
This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

**By eye contact:**
Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 **Most important symptoms/effects, acute and delayed:**
Acute and delayed effects are indicated in sections 2 and 11.

4.3 **Indication of immediate medical attention and special treatment needed, if necessary:**
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 **Suitable (and unsuitable) extinguishing media:**
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 **Specific hazards arising from the chemical:**
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 **Special protective equipment and precautions for fire-fighters:**
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures:**
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 **Environmental precautions:**
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 **Methods and materials for containment and cleaning up:**
It is recommended:
SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. Precautions for safe manipulation
   Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.
B. Technical recommendations for the prevention of fires and explosions
   Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C. Technical recommendations to prevent ergonomic and toxicological risks
   Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D. Technical recommendations to prevent environmental risks
   It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. Technical measures for storage
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F
B. General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
 Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>0.75 ppm</td>
</tr>
<tr>
<td>CAS: 50-00-0</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.
B. Respiratory protection
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Liquid
Appearance: Opaque
Color: Red
Odor: Characteristic
Odour threshold: Non-applicable *

Volatility:
Boiling point at atmospheric pressure: 215 °F
Vapour pressure at 68 °F: 2352 Pa

*Not relevant due to the nature of the product, not providing information property of its hazards.
Vapour pressure at 122 °F: 92.57 (12.34 kPa)
Evaporation rate at 68 °F: Non-applicable *
Product description:
Density at 68 °F: 1041.6 kg/m³
Relative density at 68 °F: 1.042
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: Non-applicable *
Concentration: Non-applicable *
pH: 8 - 10 at 100 %
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *
Flammability:
Flash Point: Non Flammable (>199.4 °F)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 °F
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *
Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *
9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *
*Not relevant due to the nature of the product, not providing information property of its hazards.

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.
10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.
10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.
10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
</table>
SECTION 10: STABILITY AND REACTIVITY (continued)

<table>
<thead>
<tr>
<th>Avoid strong acids</th>
<th>Not applicable</th>
<th>Not applicable</th>
<th>Not applicable</th>
<th>Avoid alkalis or strong bases</th>
</tr>
</thead>
</table>

10.6 **Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects:**

The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
   - Contact with the eyes: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
   - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
     - IARC: Formaldehyde (1); 2-butoxyethanol (3)
   - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
   - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
   - Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
   - Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**H- Aspiration hazard:**

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**Other information:**

Non-applicable

**Specific toxicology information on the substances:**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral: 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal: 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation: 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Sodium xylenesulphonate</td>
<td>LD50 oral: 7200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>LD50 dermal: Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation: Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

**Acute Toxicity Estimate (ATE mix):**

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>33743.01 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>24160.36 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>250.72 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

#### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 (96 h): 1490 mg/L</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 (48 h): 1815 mg/L</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 (72 h): 911 mg/L</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5: 0.71 g O2/g</td>
<td>Concentration: 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD: 2.2 g O2/g</td>
<td>Period: 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD: 0.32</td>
<td>% Biodegradable: 96 %</td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF: 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log: 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential: Low</td>
</tr>
</tbody>
</table>

#### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc: it</td>
<td>Henry: 1.621E-1 Pa·m²/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion: Very High</td>
<td>Dry soil: No</td>
</tr>
<tr>
<td></td>
<td>Surface tension: 2.729E-2 N/m (77 °F)</td>
<td>Moist soil: Yes</td>
</tr>
</tbody>
</table>

#### 12.5 Results of PBT and vPvB assessment:

Non-applicable

#### 12.6 Other adverse effects:
SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:
SECTION 14: TRANSPORT INFORMATION (continued)

| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group, if applicable: | Non-applicable |
| 14.5 Environmental hazard: | No |
| 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises | see section 9 |
| Physico-Chemical properties | Non-applicable |
| 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA) : Sodium xylenesulphonate ; 2-butoxyethanol
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Sodium xylenesulphonate ; 2-butoxyethanol
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.
SECTION 16: OTHER INFORMATION (continued)

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF382 - Sunshine Yellow 382

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS
   contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and
   available for employees and other users of this product.

2.2 Label elements:
   29 CFR 1910.1200:
   None

   Acute Toxicity Estimate (ATE mix):
   16.75 % (oral), 16.75 % (dermal), 16.75 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:
   Chemical description: Aqueous mixture composed of chemical products for cleaning products

   Components:
   Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity
   and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of
   §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 2: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
   The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct
   exposure to the chemical product or persistent discomfort, showing the SDS of this product.

   By Inhalation:
SECTION 4: FIRST-AID MEASURES (continued)

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

**By eye contact:**

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 **Most important symptoms/effects, acute and delayed:**

Acute and delayed effects are indicated in sections 2 and 11.

4.3 **Indication of immediate medical attention and special treatment needed, if necessary:**

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 **Suitable (and unsuitable) extinguishing media:**

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 **Specific hazards arising from the chemical:**

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 **Special protective equipment and precautions for fire-fighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures:**

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 **Environmental precautions:**

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 **Methods and materials for containment and cleaning up:**

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 **Reference to other sections:**

- CONTINUED ON NEXT PAGE -
SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
   Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically
   sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
   Maintain order and cleanliness where dangerous products are used.
B. - Technical recommendations for the prevention of fires and explosions
   Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow
   speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information
   on conditions and materials that should be avoided.
C. - Technical recommendations to prevent ergonomic and toxicological risks
   Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D. - Technical recommendations to prevent environmental risks
   It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F
B. - General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this
product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>0.75 ppm</td>
</tr>
<tr>
<td>CAS: 50-00-0</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>2 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td></td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td>240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. - Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal
   Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by
   the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the
   information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing
   application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard
   assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance
B. - Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.
C. - Specific protection for the hands

- CONTINUED ON NEXT PAGE -
## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

### D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

### E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

### F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

### Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

---

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Opaque
- Color: Yellow
- Odor: Characteristic
- Odour threshold: Non-applicable *

**Vapour pressure at 68 °F:**
- 2352 Pa
- 92.58 (12.34 kPa)

**Evaporation rate at 68 °F:**
- Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*
**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)**

**Product description:**
- Density at 68 °F: 1025.9 kg/m³
- Relative density at 68 °F: 1.026
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 8 - 10 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

**9.2 Other information:**
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

---

**SECTION 10: STABILITY AND REACTIVITY**

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:  

- CONTINUED ON NEXT PAGE -
SECTION 10: STABILITY AND REACTIVITY (continued)

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
  - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
  - Corrosivity/Irritation: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
  - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
  - Corrosivity/Irritation: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
  - Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
  - Contact with the eyes: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
  - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
    - IARC: Formaldehyde (1); 2-butoxyethanol (3)
  - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
  - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
  - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
  - Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
  Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
  - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
  - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>33633 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>25212.86 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>261.64 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa m^3/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2018:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA): 2-butoxyethanol
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
   New York RTK - Substance list: 2-butoxyethanol
   Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
   CANADA-Domestic Substances List (DSL): 2-butoxyethanol
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: 2-butoxyethanol
   Rhode Island - Hazardous substances RTK: 2-butoxyethanol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

- CONTINUED ON NEXT PAGE -
### Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

### Abbreviations and acronyms:
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF383 - Genuine Green 383

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Dye additive for commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 920337-2175 - Fax: 920337-9410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

2.2 Label elements:
29 CFR 1910.1200:
None

Acute Toxicity Estimate (ATE mix):
7.24 % (oral), 12.52 % (dermal), 12.52 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

- CONTINUED ON NEXT PAGE -
SECTION 4: FIRST-AID MEASURES (continued)

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:
Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.
SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A. Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A. Technical measures for storage

Minimum Temp.: -4 °F

Maximum Temp.: 120 °F

B. General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>8-hour TWA PEL 0.75 ppm</td>
</tr>
<tr>
<td>CAS: 50-00-0</td>
<td>Ceiling Values - TWA PEL 2 ppm</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Liquid
Appearance: Opaque
Color: Green
Odor: Characteristic
Odour threshold: Non-applicable *

Volutility:
Boiling point at atmospheric pressure: 215 °F
Vapour pressure at 68 °F: 2376 Pa
Vapour pressure at 122 °F: 93.03 (12.4 kPa)
Evaporation rate at 68 °F: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

**Product description:**

- Density at 68 ºF: 1049.5 kg/m³
- Relative density at 68 ºF: 1.049
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: 9.5 - 10.5 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**

- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**

- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

**9.2 Other information:**

- Surface tension at 68 ºF: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

**10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

**10.2 Chemical stability:**

Chemically stable under the conditions of storage, handling and use.

**10.3 Possibility of hazardous reactions:**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

**10.4 Conditions to avoid:**

Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

**10.5 Incompatible materials:**

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

**10.6 Hazardous decomposition products:**
SECTION 10: STABILITY AND REACTIVITY (continued)

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
   - Contact with the eyes: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
   - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
      IARC: Formaldehyde (1); 2-butoxyethanol (3); 2,2’,2”-nitrilotriethanol (3)
   - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
   - Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
   - Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
   Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
   - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
   - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

### Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral</td>
<td>1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>LD50 dermal</td>
<td>1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td>LC50 inhalation</td>
<td>11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

### Identification

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral</td>
<td>1414 mg/kg</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>LD50 dermal</td>
<td>1060 mg/kg</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>LC50 inhalation</td>
<td>11 mg/L (4 h)</td>
<td>Pseudokirchneriella sub capitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

### Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>40515.76 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>26599.55 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>275.72 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

#### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>911 mg/L (72 h)</td>
<td>Pseudokirchneriella sub capitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

#### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.72E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

#### 12.5 Results of PBT and vPvB assessment:

Non-applicable

#### 12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Disposal methods:

Waste management (disposal and evaluation):
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:
SECTION 14: TRANSPORT INFORMATION (continued)

| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group, if applicable: | Non-applicable |
| 14.5 Environmental hazard: | No |
| 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises | see section 9 |
| Physico-Chemical properties: | Non-applicable |

| 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
- The Toxic Substances Control Act (TSCA): 2-butoxyethanol
- Massachusetts RTK - Substance List: Non-applicable
- New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
- New York RTK - Substance list: 2-butoxyethanol
- Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
- CANADA-Domestic Substances List (DSL): 2-butoxyethanol
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: 2-butoxyethanol
- Rhode Island - Hazardous substances RTK: 2-butoxyethanol
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
- Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flam. Liq. 4: H227 - Combustible liquid
- Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.
**Principal bibliographical sources:**
Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

**Manufacturer Disclaimer:** The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
### SECTION 1: IDENTIFICATION

1.1 **GHS Product identifier:** UF384 - Perfect Purple 384  
1.2 **Recommended use of the chemical and restrictions on use:**  
   Relevant uses: Chemical cleaning products  
   Dye additive for commercial car washes.  
   Uses advised against: All uses not specified in this section or in section 7.3  
1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**  
   Cleaning Systems, Inc.  
   1997 American Blvd  
   54115 De Pere - United States  
   Phone.: 9203372175 - Fax: 9203379410  
   chemcompliance@cleaningsystemsinc.com  
   http://cleaningsystemsinc.com  
1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

### SECTION 2: HAZARD(S) IDENTIFICATION

2.1 **Classification of the substance or mixture:**  
   29 CFR 1910.1200:  
   While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.  
2.2 **Label elements:**  
   29 CFR 1910.1200:  
   None  
   Acute Toxicity Estimate (ATE mix):  
   19.4 % (oral), 22.55 % (dermal), 22.55 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity  
2.3 **Other hazards which do not result in classification:**  
   Non-applicable

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 **Substances:**  
   Non-applicable  
3.2 **Mixtures:**  
   **Chemical description:** Aqueous mixture composed of chemical products for cleaning products  
   **Components:**  
   Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 1300-72-7</td>
<td>Sodium xylenesulphonate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Irrit. 2: H319 - Warning</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

### SECTION 4: FIRST-AID MEASURES

4.1 **Description of necessary measures:**
SECTION 4: FIRST-AID MEASURES (continued)

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**
This product is not classified as hazardous through inhalation; however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**
This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

**By eye contact:**
Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 **Most important symptoms/effects, acute and delayed:**
Acute and delayed effects are indicated in sections 2 and 11.

4.3 **Indication of immediate medical attention and special treatment needed, if necessary:**
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 **Suitable (and unsuitable) extinguishing media:**
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 **Specific hazards arising from the chemical:**
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 **Special protective equipment and precautions for fire-fighters:**
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures:**
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 **Environmental precautions:**
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 **Methods and materials for containment and cleaning up:**
It is recommended:
**SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)**

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 **Reference to other sections:**

See sections 8 and 13.

---

**SECTION 7: HANDLING AND STORAGE**

7.1 **Precautions for safe handling:**

A. - Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. - Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. - Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. - Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 **Conditions for safe storage, including any incompatibilities:**

A. - Technical measures for storage

Minimum Temp.:  -4 °F

Maximum Temp.:  120 °F

B. - General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 **Specific end use(s):**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

---

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

8.1 **Control parameters:**

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>8-hour TWA PEL 0.75 ppm</td>
</tr>
<tr>
<td>CAS: 50-00-0</td>
<td>Ceiling Values - TWA PEL 2 ppm</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 **Appropriate engineering controls:**

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

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Date of compilation: 3/15/2019    Version: 1
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Opaque
- Color: Purple
- Odor: Characteristic
- Odour threshold: Non-applicable *

**Vollatility:**
- Boiling point at atmospheric pressure: 215 °F
- Vapour pressure at 68 °F: 2352 Pa

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Vapour pressure at 122 °F: 92.56 (12.34 kPa)
Evaporation rate at 68 °F: Non-applicable *

Product description:
Density at 68 °F: 1039.3 kg/m³
Relative density at 68 °F: 1.039
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: Non-applicable *
Concentration: Non-applicable *

pH: 8 - 10 at 100 %
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 °F)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 °F
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
</table>

- CONTINUED ON NEXT PAGE -
SECTION 10: STABILITY AND REACTIVITY (continued)

<table>
<thead>
<tr>
<th>Avoid strong acids</th>
<th>Not applicable</th>
<th>Not applicable</th>
<th>Not applicable</th>
<th>Avoid alkalies or strong bases</th>
</tr>
</thead>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Formaldehyde (1); 2-butoxyethanol (3); Brilliant blue FCF (C.I.4290/C.I.Acid Blue 9) (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS 111-76-2</td>
<td>LD50 oral 1414 mg/kg Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg Rabbit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h) Rat</td>
<td></td>
</tr>
<tr>
<td>Sodium xylenesulphonate CAS 1300-72-7</td>
<td>LD50 oral 7200 mg/kg Rat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral 32562.4 mg/kg (Calculation method)</td>
<td>19.4 %</td>
</tr>
<tr>
<td>Dermal 23456.29 mg/kg (Calculation method)</td>
<td>22.55 %</td>
</tr>
<tr>
<td>Inhalation 243.41 mg/L (4 h) (Calculation method)</td>
<td>22.55 %</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS 111-76-2</td>
<td>LC50 1490 mg/L (96 h) Lepomis macrochirus</td>
<td>Fish</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 1815 mg/L (48 h) Daphnia magna</td>
<td>Crustacean</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h) Pseudokirchneriella subcapitata</td>
<td>Algae</td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS 111-76-2</td>
<td>BOD5 0.71 g O2/g Concentration</td>
<td>100 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD 2.2 g O2/g Period</td>
<td>14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32 % Biodegradable</td>
<td>96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS 111-76-2</td>
<td>BCF 3</td>
</tr>
<tr>
<td></td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS 111-76-2</td>
<td>Koc it Henry</td>
<td>1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion Very High Dry soil</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F) Moist soil</td>
<td>Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

- CONTINUED ON NEXT PAGE -
### SECTION 12: ECOLOGICAL INFORMATION (continued)

Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

### SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

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Date of compilation: 3/15/2019          Version: 1

Page 8/10
SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>Section</th>
<th>Requirement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
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<td>UN number:</td>
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</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>see section 9</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
- The Toxic Substances Control Act (TSCA): 2-butoxyethanol; Sodium xylenesulphonate
- Massachusetts RTK - Substance List: Non-applicable
- New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
- New York RTK - Substance list: 2-butoxyethanol
- Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
- CANADA-Domestic Substances List (DSL): 2-butoxyethanol; Sodium xylenesulphonate
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: 2-butoxyethanol
- Rhode Island - Hazardous substances RTK: 2-butoxyethanol
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:

- Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flam. Liq. 4: H227 - Combustible liquid
- Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.
**SECTION 16: OTHER INFORMATION (continued)**

**Principal bibliographical sources:**
Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon
 SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF400 - Drying Agent 400
1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Quaternary ammonium compounds-mineral oil mixture, for use as a drying agent in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3
1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com
1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

 SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
   Asp. Tox. 1: Aspiration hazard, Category 1, H304
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Corr. 1B: Skin corrosion, Category 1B, H314

2.2 Label elements:
   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Acute Tox. 4: H302 - Harmful if swallowed
   Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
   Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

   Precautionary statements:
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor
   P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

   Substances that contribute to the classification
   Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC; Quaternary Ammonium Compounds; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride; 2-butoxyethanol

   Acute Toxicity Estimate (ATE mix):
   42.32 % (oral), 69 % (dermal), 69 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
SECTION 2: HAZARD(S) IDENTIFICATION (continued)

Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 64742-46-7</td>
<td>Distillates (petroleum), hydrotreated middle, &lt;20.5 cSt@40°C</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td></td>
<td>Asp. Tox. 1: H304 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Skin Corr. 1B: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>Alkoxylated Fatty Amine, Quaternary Ammonium Chloride</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable
SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
SECTION 7: HANDLING AND STORAGE (continued)

Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>240 mg/m³</td>
</tr>
<tr>
<td>Chloromethane</td>
<td>100 ppm</td>
</tr>
<tr>
<td>CAS: 74-87-3</td>
<td>200 ppm</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional / industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections. Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Red
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 317 °F
- Vapour pressure at 68 °F: 1949 Pa
- Vapour pressure at 122 °F: 77.1 (10.28 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 941 kg/m³
- Relative density at 68 °F: 0.941
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: <20.5 cSt
- Concentration: Non-applicable *
- pH: Non-applicable *
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Flammability:
Flash Point: Non Flammable (>199.4 °F)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 °F
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

#### B- Inhalation (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

#### C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

#### D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3); E-caprolactam (4); Chloromethane (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### H- Aspiration hazard:

The consumption of a considerable dose can cause pulmonary damage.

### Other information:

Non-applicable

### Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LD50 oral 960 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Alkoxylated Fatty Amine, Quaternary Ammonium Chloride</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

### Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
</table>

- CONTINUED ON NEXT PAGE -
**SECTION 11: TOXICOLOGICAL INFORMATION (continued)**

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
<th>Calculated Value</th>
<th>% Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1501.03 mg/kg (Calculation method)</td>
<td>42.32 %</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>5476.67 mg/kg (Calculation method)</td>
<td>69 %</td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>56.83 mg/L (4 h) (Calculation method)</td>
<td>69 %</td>
<td></td>
</tr>
</tbody>
</table>

**SECTION 12: ECOLOGICAL INFORMATION**

The experimental information related to the eco-toxicological properties of the product itself is not available.

### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LC50 Non-applicable</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 Non-applicable</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>BOD5 Non-applicable</td>
<td>Concentration Non-applicable</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 82 %</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

### 12.5 Results of PBT and vPvB assessment:

Non-applicable

### 12.6 Other adverse effects:

Not described

**SECTION 13: DISPOSAL CONSIDERATIONS**

### 13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE
SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN2735
14.2 UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary Ammonium Chloride)

14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

14.1 UN number: UN2735
14.2 UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary Ammonium Chloride)

14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

14.1 UN number: UN2735
14.2 UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary Ammonium Chloride)

14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION
SECTION 15: REGULATORY INFORMATION (continued)

15.1 Safety, health and environmental regulations specific for the product in question:

- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
- The Toxic Substances Control Act (TSCA): Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC; Quaternary Ammonium Compounds; Alkoxylation Fatty Amine, Quaternary Ammonium Chloride; 2-butoxyethanol
- Massachusetts RTK - Substance List: Non-applicable
- New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
- New York RTK - Substance list: 2-butoxyethanol
- Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
- CANADA-Domestic Substances List (DSL): Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC; Quaternary Ammonium Compounds; Alkoxylation Fatty Amine, Quaternary Ammonium Chloride; 2-butoxyethanol
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: 2-butoxyethanol
- Rhode Island - Hazardous substances RTK: 2-butoxyethanol
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

- The Toxic SubstancesControl Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:

- H314: Causes severe skin burns and eye damage
- H318: Causes serious eye damage
- H302: Harmful if swallowed
- H304: May be fatal if swallowed and enters airways

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:

- Acute Tox. 4: H302 - Harmful if swallowed
- Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
- Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
- Eye Dam. 1: H318 - Causes serious eye damage
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flam. Liq. 4: H227 - Combustible liquid
- Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
- Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
## SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>CL50</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW</td>
<td>Octanol-water partition coefficient</td>
</tr>
<tr>
<td>Koc</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF405 - Pearl® Black 405

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products
Quaternary ammonium compounds-mineral oil mixture, for use as a drying agent in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 920-337-2175 - Fax: 920-337-9410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1B: Skin corrosion, Category 1B, H314

2.2 Label elements:

29 CFR 1910.1200:
Danger

Hazard statements:
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor

Substances that contribute to the classification
Long-chain alkenyl imidazoline alkanol; 3-butoxypropan-2-ol; Quaternary Ammonium Compounds; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride

Acute Toxicity Estimate (ATE mix):
57.93 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)**

Non-applicable

3.2 Mixtures:

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Long-chain alkenyl imidazoline alkanol</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td><strong>Skin Corr. 1B: H314 - Danger</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 5131-66-8</td>
<td>3-butoxypropan-2-ol</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td><strong>Eye Irrit. 2: H319; Flam. Liq. 3: H226 - Warning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td><strong>Acute Tox. 4: H302; Skin Corr. 1B: H314 - Danger</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>Alkoxylated Fatty Amine, Quaternary Ammonium Chloride</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td><strong>Acute Tox. 4: H302; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

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**SECTION 4: FIRST-AID MEASURES**

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

**By inhalation:**

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

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**SECTION 5: FIRE-FIGHTING MEASURES**

5.1 Suitable (and unsuitable) extinguishing media:

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A. Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. Technical recommendations for the prevention of fires and explosions
Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for conditions and materials that should be avoided.

C. Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)
SECTION 7: HANDLING AND STORAGE (continued)

7.2 Conditions for safe storage, including any incompatibilities:

A. - Technical measures for storage
   - Minimum Temp.: -4 °F
   - Maximum Temp.: 120 °F

B. - General conditions for storage
   - Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
   - Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

<table>
<thead>
<tr>
<th>Substance</th>
<th>8-hour TWA PEL</th>
<th>Ceiling Values - TWA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloromethane</td>
<td>100 ppm</td>
<td>200 ppm</td>
</tr>
<tr>
<td>CAS: 74-87-3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

   - As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,….) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

   - The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

   - Mandatory hand protection

   - Protective gloves against minor risks

   - Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)

   - As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

   - Mandatory face protection

   - Panoramic glasses against splash/projections.

   - Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)

E. - Bodily protection

   - Work clothing

   - Replace before any evidence of deterioration.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Opaque
- Color: Black
- Odor: Solvent
- Odour threshold: Non-applicable *

**Volutility:**
- Boiling point at atmospheric pressure: 242 ºF
- Vapour pressure at 68 ºF: 2188 Pa
- Vapour pressure at 122 ºF: 86.61 (11.55 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 962 kg/m³
- Relative density at 68 ºF: 0.96
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: Non-applicable *
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Flammability:
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 500 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: Chloromethane (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicity information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>LD50 oral 3300 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 5131-86-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LD50 oral 960 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Alkoxylated Fatty Amine, Quaternary Ammonium Chloride</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>4104.39 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>LC50 560 mg/L (96 h)</td>
<td>Poecilia reticulada</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 5131-66-8</td>
<td>EC50 1436 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 0.06 mg/L (72 h)</td>
<td>N/A</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>BOD5 Non-applicable</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 5131-66-8</td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 89 %</td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>BOD5 Non-applicable</td>
<td>Concentration Non-applicable</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 82 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-butoxypropan-2-ol</td>
<td>BCF 1</td>
</tr>
<tr>
<td>CAS: 5131-66-8</td>
<td>Pow Log Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

Not available

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>UN2735</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary Ammonium Chloride)</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>III</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>Yes</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>UN2735</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary Ammonium Chloride)</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>III</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>Yes</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>UN2735</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary Ammonium Chloride)</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>III</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>Yes</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
- The Toxic Substances Control Act (TSCA): 3-butoxypropan-2-ol; Quaternary Ammonium Compounds; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride
- Massachusetts RTK - Substance List: Non-applicable
- New Jersey Worker and Community Right-to-Know Act: Non-applicable
- New York RTK - Substance list: Non-applicable
- Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
- CANADA-Domestic Substances List (DSL): 3-butoxypropan-2-ol; Quaternary Ammonium Compounds; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: Non-applicable
- Rhode Island - Hazardous substances RTK: Non-applicable
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage
H314: Causes severe skin burns and eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 3: H226 - Flammable liquid and vapour
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
SECTION 16: OTHER INFORMATION (continued)

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF420 - Sealant 420 Unscented

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Quaternary ammonium compounds-mineral oil mixture, for use as a drying agent in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Acute Tox. 4: Acute toxicity on contact with skin, Category 4, H312
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Acute Tox. 4: Acute inhalation toxicity, Category 4, H332
Asp. Tox. 1: Aspiration hazard, Category 1, H304
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1B: Skin corrosion, Category 1B, H314

2.2 Label elements:
29 CFR 1910.1200:

Danger

Hazard statements:
Acute Tox. 4: H312 - Harmful in contact with skin
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H332 - Harmful if inhaled
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P501: Dispose of contents and/or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC; Quaternary Ammonium Compounds; 2-butoxyethanol; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride
UF420 - Sealant 420 Unscented

Safety data sheet
according to 29 CFR 1910.1200

SECTION 2: HAZARD(S) IDENTIFICATION (continued)

Acute Toxicity Estimate (ATE mix):
58.26 % (oral), 87.3 % (dermal), 87.3 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 64742-46-7</td>
<td>Distillates (petroleum), hydrotreated middle, &lt;20.5 cSt at 40°C</td>
<td>35 - &lt;65 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>Alkoxylated Fatty Amine, Quaternary Ammonium Chloride</td>
<td>5 - &lt;10 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By Inhalation:
Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By Skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By Eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By Ingestion/aspiration:
Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
SECTION 4: FIRST-AID MEASURES (continued)

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment.

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
SECTION 7: HANDLING AND STORAGE (continued)

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Minimum Temp.: -4 °F

Maximum Temp.: 120 °F

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

| Chloromethane        |                      |
| CAS: 74-87-3         | 8-hour TWA PEL 100 ppm |
|                      | Ceiling Values - TWA PEL 200 ppm |

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,….) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

Date of compilation: 5/31/2019  Version: 1
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Liquid
Appearance: Opaque
Color: Greenish
Odor: Solvent
Odour threshold: Non-applicable *

Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/freezing point:</td>
<td>Non-applicable*</td>
</tr>
<tr>
<td>Explosive properties:</td>
<td>Non-applicable*</td>
</tr>
<tr>
<td>Oxidising properties:</td>
<td>Non-applicable*</td>
</tr>
<tr>
<td><strong>Flammability:</strong></td>
<td></td>
</tr>
<tr>
<td>Flash Point:</td>
<td>206 °F</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Non-applicable*</td>
</tr>
<tr>
<td>Autoignition temperature:</td>
<td>460 °F</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>Non-applicable*</td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>Non-applicable*</td>
</tr>
<tr>
<td><strong>Explosive:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit:</td>
<td>Non-applicable*</td>
</tr>
<tr>
<td>Upper explosive limit:</td>
<td>Non-applicable*</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

### SECTION 10: STABILITY AND REACTIVITY

10.1 **Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 **Chemical stability:**

Chemically stable under the conditions of storage, handling and use.

10.3 **Possibility of hazardous reactions:**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 **Conditions to avoid:**

Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 **Incompatible materials:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 **Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

### SECTION 11: TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects:**

The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

**A- Ingestion (acute effect):**

- CONTINUED ON NEXT PAGE -
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

**B - Inhalation (acute effect):**
- Acute toxicity: Exposure in high concentration can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

**C - Contact with the skin and the eyes (acute effect):**
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

**D - CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):**
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3); Chloromethane (3); 2,2',2´-nitrolotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**E - Sensitizing effects:**
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**F - Specific target organ toxicity (STOT) - single exposure:**
- Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**G - Specific target organ toxicity (STOT)-repeated exposure:**
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**H - Aspiration hazard:**
- The consumption of a considerable dose can cause pulmonary damage.

**Other information:**
- Non-applicable

**Specific toxicology information on the substances:**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LD50 oral 960 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Alkoxylated Fatty Amine, Quaternary Ammonium Chloride</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

**Acute Toxicity Estimate (ATE mix):**

<table>
<thead>
<tr>
<th>Ingredient(s) of unknown toxicity</th>
<th>ATE mix</th>
</tr>
</thead>
</table>

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>931.63 mg/kg (Calculation method)</td>
<td>56.26 %</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>1253.45 mg/kg (Calculation method)</td>
<td>87.3 %</td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>13.01 mg/L (4 h) (Calculation method)</td>
<td>87.3 %</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LC50 Non-applicable</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 Non-applicable</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 0.06 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>BOD5 Non-applicable Concentration</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD Non-applicable Period</td>
<td>28 days</td>
</tr>
<tr>
<td>BOD5/COD Non-applicable % Biodegradable</td>
<td>82 %</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g Concentration</td>
<td>100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g Period</td>
<td>14 days</td>
</tr>
<tr>
<td>BOD5/COD 0.32 % Biodegradable</td>
<td>96 %</td>
<td></td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8 Henry</td>
<td>1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High Dry soil No</td>
<td></td>
</tr>
<tr>
<td>Surface tension</td>
<td>2.729E-2 N/m (77 ºF) Moist soil Yes</td>
<td></td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

Date of compilation: 5/31/2019 Version: 1
SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN2735
14.2 UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary Ammonium Chloride)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN2735
14.2 UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary Ammonium Chloride)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: UN2735
14.2 UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary Ammonium Chloride)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

- CONTINUED ON NEXT PAGE -
SECTION 15: REGULATORY INFORMATION (continued)

15.1 Safety, health and environmental regulations specific for the product in question:

- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
- The Toxic Substances Control Act (TSCA) : Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC ; Quaternary Ammonium Compounds ; 2-butoxyethanol ; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride
- Massachusetts RTK - Substance List: Non-applicable
- New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
- New York RTK - Substance list: 2-butoxyethanol
- Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
- CANADA-Domestic Substances List (DSL): Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC ; Quaternary Ammonium Compounds ; 2-butoxyethanol ; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: 2-butoxyethanol
- Rhode Island - Hazardous substances RTK: 2-butoxyethanol
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Relevant instructions for use:

Since high dilution ratios are difficult to determine and adjust accurately, set up ProShield® to draw about ¾ ounce per vehicle in low volume applications. In high volume systems, start at 1 ounce per vehicle. Adjust concentration to achieve the desired beading action and vehicle shine.

Dilution Ratio Ounces per Car
High Pressure 1:1000 to 1:1500 ¾ to 1¼ oz.
Low Pressure 1:400 to 1:500 ½ to ¾ oz

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H312: Harmful in contact with skin
H302: Harmful if swallowed
H332: Harmful if inhaled
H304: May be fatal if swallowed and enters airways

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
SECTION 16: OTHER INFORMATION (continued)

Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF421 - Sealant 421 Tropical Fruit

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products
Quaternary ammonium compounds-mineral oil mixture, for use as a drying agent in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Acute Tox. 4: Acute toxicity on contact with skin, Category 4, H312
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
Acute Tox. 4: Acute inhalation toxicity, Category 4, H332
Asp. Tox. 1: Aspiration hazard, Category 1, H304
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1B: Skin corrosion, Category 1B, H314

2.2 Label elements:

29 CFR 1910.1200:

Danger

Hazard statements:
Acute Tox. 4: H312 - Harmful in contact with skin
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H332 - Harmful if inhaled
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC; Quaternary Ammonium Compounds; 2-butoxyethanol; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride
SF 421 - Sealant 421 Tropical Fruit

Safety data sheet
according to 29 CFR 1910.1200

SECTION 2: HAZARD(S) IDENTIFICATION (continued)

Acute Toxicity Estimate (ATE mix):
52 % (oral), 81.2 % (dermal), 81.2 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products
Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 64742-46-7</td>
<td>Distillates (petroleum), hydrotreated middle, &lt;20.5 cSt@40ºC</td>
<td>35 - &lt;65 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>Alkoxylated Fatty Amine, Quaternary Ammonium Chloride</td>
<td>5 - &lt;10 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By inhalation:
Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Date of compilation: 5/20/2019
Version: 1
Page 2/11
SECTION 4: FIRST-AID MEASURES (continued)

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
SECTION 7: HANDLING AND STORAGE (continued)

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F
B.- General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
   Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
   Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl acetate</td>
<td>8-hour TWA PEL 400 ppm</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>Chloromethane</td>
<td>8-hour TWA PEL 100 ppm</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

Date of compilation: 5/20/2019            Version: 1
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
Physical state at 68 ºF: Liquid
Appearance: Opaque
Color: Greenish
Odor: Fruity
Odour threshold: Non-applicable *

**Volvatility:**
Boiling point at atmospheric pressure: 413 ºF
Vapour pressure at 68 ºF: 858 Pa
Vapour pressure at 122 ºF: 34.09 (4.54 kPa)
Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
Density at 68 ºF: 910 kg/m³
Relative density at 68 ºF: 0.91
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: <20.5 cSt
Concentration: Non-applicable *
pH: Non-applicable *
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decomposition temperature</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Flammability</strong></td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>204 °F</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>460 °F</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

9.2 **Other information:**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface tension at 68 °F</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 **Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 **Chemical stability:**

Chemically stable under the conditions of storage, handling and use.

10.3 **Possibility of hazardous reactions:**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 **Conditions to avoid:**

Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 **Incompatible materials:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid</td>
<td>strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 **Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects:**

The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:
A- Ingestion (acute effect):
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Exposure in high concentration can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: Benzyl acetate (3); Coumarin (3); 2-butoxyethanol (3); Chloromethane (3); 2,2',2''-nitrilotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
The consumption of a considerable dose can cause pulmonary damage.

Other information:
Non-applicable

Specific toxicity information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LD50 oral 960 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Alkoxylated Fatty Amine, Quaternary Ammonium Chloride</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):
### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1023.64 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>1577.04 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>16.32 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 **Ecotoxicity (aquatic and terrestrial, where available):**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LC50</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>EC50</td>
<td>0.06 mg/L (72 h)</td>
<td>N/A</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50</td>
<td>1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>EC50</td>
<td>1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50</td>
<td>111 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
</tr>
</tbody>
</table>

12.2 **Persistence and degradability:**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>BOD5</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5</td>
<td>0.71 g O2/g</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD</td>
<td>2.2 g O2/g</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5/COD</td>
<td>0.32</td>
</tr>
</tbody>
</table>

12.3 **Bioaccumulative potential:**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Potential</td>
</tr>
</tbody>
</table>

12.4 **Mobility in soil:**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc</td>
<td>0</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion</td>
<td>Very High</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Surface tension</td>
<td>2.729E-2 N/m (77 °F)</td>
</tr>
</tbody>
</table>

12.5 **Results of PBT and vPvB assessment:**

Non-applicable

12.6 **Other adverse effects:**

Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

13.1 **Disposal methods:**

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE
### SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:

- **14.1 UN number:** UN2735
- **14.2 UN proper shipping name:** AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary Ammonium Chloride)
- **14.3 Transport hazard class(es):** 8
  - Labels: 8
  - Packing group, if applicable: III
- **14.5 Environmental hazard:** No
- **14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**
  - Physico-Chemical properties: see section 9
  - Non-applicable
- **14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

- **14.1 UN number:** UN2735
- **14.2 UN proper shipping name:** AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary Ammonium Chloride)
- **14.3 Transport hazard class(es):** 8
  - Labels: 8
  - Packing group, if applicable: III
- **14.5 Environmental hazard:** No
- **14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**
  - Physico-Chemical properties: see section 9
  - Non-applicable
- **14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

- **14.1 UN number:** UN2735
- **14.2 UN proper shipping name:** AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary Ammonium Chloride)
- **14.3 Transport hazard class(es):** 8
  - Labels: 8
  - Packing group, if applicable: III
- **14.5 Environmental hazard:** No
- **14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**
  - Physico-Chemical properties: see section 9
  - Non-applicable
- **14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable
15.1 Safety, health and environmental regulations specific for the product in question:

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC; Quaternary Ammonium Compounds; 2-butoxyethanol; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Distillates (petroleum), hydrotreated middle, <20.5 cSt@40ºC; Quaternary Ammonium Compounds; 2-butoxyethanol; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Relevant instructions for use:

Since high dilution ratios are difficult to determine and adjust accurately, set up ProShield® to draw about ¾ ounce per vehicle in low volume applications. In high volume systems, start at 1 ounce per vehicle. Adjust concentration to achieve the desired beading action and vehicle shine.

Dilution Ratio Ounces per Car
High Pressure 1:1000 to 1:1500 ¾ to 1¼ oz.
Low Pressure 1:400 to 1:500 ½ to ¾ oz

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)
### SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Acute Tox. 4: H302</th>
<th>Harmful if swallowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4: H302+H312+H332</td>
<td>Harmful if swallowed, in contact with skin or if inhaled</td>
</tr>
<tr>
<td>Asp. Tox. 1: H304</td>
<td>May be fatal if swallowed and enters airways</td>
</tr>
<tr>
<td>Eye Dam. 1: H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>Eye Irrit. 2: H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>Flam. Liq. 4: H227</td>
<td>Combustible liquid</td>
</tr>
<tr>
<td>Skin Corr. 1B: H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>Skin Irrit. 2: H315</td>
<td>Causes skin irritation</td>
</tr>
</tbody>
</table>

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon
UF427 - Foamy Glo-N-Go®

Safety data sheet
according to 29 CFR 1910.1200

UF427 - Foamy Glo-N-Go®

SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF427 - Foamy Glo-N-Go®

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Liquid protection product for commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Acute Tox. 4: Acute toxicity, Category 4, H302+H312
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Acute Tox. 4: H312 - Harmful in contact with skin
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P332+P313: If skin irritation occurs: Get medical advice/attention
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>Glycolic acid</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>Acute Tox. 4: H332; Eye Dam. 1: H318; Skin Corr. 1B: H314 - Danger</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation; however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.
SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Protection gloves against minor risks</td>
</tr>
<tr>
<td></td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
<td></td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Panoramic glasses against splash/projections</td>
</tr>
<tr>
<td></td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
<td></td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Work clothing</td>
</tr>
<tr>
<td></td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Anti-slip work shoes</td>
</tr>
<tr>
<td></td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Yellowish
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 228 °F
- Vapour pressure at 68 °F: 2267 Pa
- Vapour pressure at 122 °F: 89.64 (11.95 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1017.1 kg/m³
- Relative density at 68 °F: 1.017
- Dynamic viscosity at 68 °F: 2.19 cP
- Kinematic viscosity at 68 °F: 2.15 cSt
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: <3
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

#### 9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

### SECTION 10: STABILITY AND REACTIVITY

#### 10.1 Reactivity:

- CONTINUED ON NEXT PAGE -
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION**

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Glycollic acid</td>
<td>LD50 oral 2040 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h (ATEI))</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>Glycollic acid</td>
<td>LC50 164 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>EC50 141 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 44 mg/L (72 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
<tr>
<td>Glycollic acid</td>
<td>BOD5 Non-applicable</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>COD Non-applicable</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 1</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>Pow Log -1.11</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>8</td>
<td>1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>Conclusion</td>
<td>Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td>Surface tension</td>
<td>2.729E-2 N/m (77 °F)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
- The Toxic Substances Control Act (TSCA): 2-butoxyethanol; Glycollic acid
- Massachusetts RTK - Substance List: Non-applicable
- New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
- New York RTK - Substance list: 2-butoxyethanol
- Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
- CANADA-Domestic Substances List (DSL): 2-butoxyethanol; Glycollic acid
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: 2-butoxyethanol
- Rhode Island - Hazardous substances RTK: 2-butoxyethanol
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)
### SECTION 16: OTHER INFORMATION

**Legislation related to safety data sheets:**
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

**Texts of the legislative phrases mentioned in section 2:**
- H315: Causes skin irritation
- H318: Causes serious eye damage
- H302+H312: Harmful if swallowed or in contact with skin

**Texts of the legislative phrases mentioned in section 3:**
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**29 CFR 1910.1200:**
- Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
- Acute Tox. 4: H332 - Harmful if inhaled
- Eye Dam. 1: H318 - Causes serious eye damage
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flam. Liq. 4: H227 - Combustible liquid
- Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
- Skin Irrit. 2: H315 - Causes skin irritation

**Advice related to training:**
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**
Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).

Date of compilation: 5/15/2019 Version: 1
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF431 - LustraFoam® with Carnauba Wax 431

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Foaming sealant for use in commercial car washes. New and Improved Since April 2019.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Acute Tox. 5: Acute toxicity if swallowed, Category 5, H303
Acute Tox. 5: Acute toxicity on contact with skin, Category 5, H313
Aquatic Acute 1: Hazardous to the aquatic environment, acute hazard, Category 1, H400
Aquatic Chronic 2: Hazardous to the aquatic environment, long-term hazard, Category 2, H411
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Acute Tox. 5: H303 - May be harmful if swallowed
Acute Tox. 5: H313 - May be harmful in contact with skin
Aquatic Acute 1: H400 - Very toxic to aquatic life
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:
P264: Wash thoroughly after use
P273: Avoid release to the environment
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P312: Call a POISON CENTER or doctor/physician if you feel unwell
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

2.3 Other hazards which do not result in classification:
Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
</table>
| CAS: Proprietary | Surfactant Mixture  
Aqueous Acute 1: H400; Aquatic Chronic 1: H410; Eye Dam. 1: H318; Skin Corr. 1C: H314; STOT RE 2: H373 - Danger | 35 - <65% |
| CAS: 68603-42-9 | Amides, coco, N,N-bis(hydroxyethyl)  
Carc. 2: H351; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning | <5% |
| CAS: 587-98-4 | C.I.Acid Yellow 36  
Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335 - Warning | <5% |
| CAS: 79-14-1 | Glycollic acid  
Acute Tox. 4: H332; Eye Dam. 1: H318; Skin Corr. 1B: H314 - Danger | <5% |
| CAS: 111-42-2 | Diethanolamine  
Acute Tox. 4: H302; Carc. 2: H351; Eye Dam. 1: H318; Skin Irrit. 2: H315; STOT RE 2: H373 - Danger | <5% |

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By Inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
SECTION 7: HANDLING AND STORAGE (continued)

Maximum Temp.: 120 °F

B. - General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl acetate</td>
<td>8-hour TWA PEL 400 ppm</td>
</tr>
</tbody>
</table>

CAS: 141-78-6

8.2 Appropriate engineering controls:
A. - Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

Anti-slip work shoes | Replace before any evidence of deterioration. |
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>ISO 3864-1:2002</td>
<td></td>
</tr>
<tr>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
<td>ISO 3864-1:2002</td>
<td></td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Opaque
- Color: Red
- Odor: Fruity
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 221 °F
- Vapour pressure at 68 °F: 2334 Pa
- Vapour pressure at 122 °F: 92.18 (12.29 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: Non-applicable *
- Relative density at 68 °F: Non-applicable *
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: >2
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 800 °F
- Lower flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>9.2 Other information:</strong></td>
<td></td>
</tr>
<tr>
<td>Surface tension at 68 °F</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Material</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
<td></td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMRE effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous with carcinogenic effects. For more information see section 3.
  (IARC: Benzyl acetate (3); Coumarin (3); Amides, coco, N,N-bis(hydroxyethyl) (2B); Diethanolamine (2B)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, however, it does contain substances which are classified as dangerous due to repetitive exposure. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

**Specific toxicology information on the substances:**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>LD50 oral 2040 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h) (ATEi)</td>
<td></td>
</tr>
<tr>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>LD50 oral 12200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>C.I.Acid Yellow 36</td>
<td>LD50 oral 5100 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 587-98-4</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>LD50 oral 710 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>LD50 dermal 12200 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surfactant Mixture</td>
<td>LC50 0.1 - 1 mg/L (96 h)</td>
<td>Fish</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 0.1 - 1 mg/L</td>
<td>Crustacean</td>
<td></td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>EC50 0.1 - 1 mg/L</td>
<td>Algae</td>
<td></td>
</tr>
<tr>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>LC50 3.6 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>EC50 4.2 mg/L (34 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
<td></td>
</tr>
<tr>
<td>EC50 2.2 mg/L (96 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
<td></td>
</tr>
<tr>
<td>Glycollic acid</td>
<td>LC50 164 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>EC50 141 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>EC50 44 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>BOD5: Non-applicable</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>COD: Non-applicable</td>
<td>Period 14 days</td>
</tr>
<tr>
<td>BOD5/COD: Non-applicable</td>
<td>% Biodegradable: 86 %</td>
<td></td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>BOD5: 0.03 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>COD: 1.52 g O2/g</td>
<td>Period 21 days</td>
</tr>
<tr>
<td>BOD5/COD: 0.02</td>
<td>% Biodegradable: 54 %</td>
<td></td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycollic acid</td>
<td>BCF: 3</td>
</tr>
<tr>
<td>CAS: 79-14-1</td>
<td>Pow Log: -1.11</td>
</tr>
<tr>
<td>Potency: Low</td>
<td></td>
</tr>
<tr>
<td>Diethanolamine</td>
<td>BCF: 1</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>Pow Log: -1.43</td>
</tr>
<tr>
<td>Potency: Low</td>
<td></td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethanolamine</td>
<td>Koc: Non-applicable</td>
<td>Henry: Non-applicable</td>
</tr>
<tr>
<td>CAS: 111-42-2</td>
<td>Conclusion: Non-applicable</td>
<td>Dry soil: Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Surface tension: 3.4E-2 N/m (299.21 °F)</td>
<td>Moist soil: Non-applicable</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

- CONTINUED ON NEXT PAGE -
## SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to 49 CFR on the Transport of Dangerous Goods:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
</tbody>
</table>

| 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

**Transport of dangerous goods by sea:**

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
</tbody>
</table>

| 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Physico-Chemical properties:</td>
<td>see section 9</td>
</tr>
</tbody>
</table>

| 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

## SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Diethanolamine 
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Diethanolamine 
- The Toxic Substances Control Act (TSCA): Amides, coco, N,N-bis(hydroxyethyl); C.I.Acid Yellow 36; Glycollic acid; Diethanolamine 
- Massachusetts RTK - Substance List: Diethanolamine 
- New Jersey Worker and Community Right-to-Know Act: Diethanolamine 
- New York RTK - Substance list: Diethanolamine 
- Pennsylvania Worker and Community Right-to-Know Law: Diethanolamine 
- CANADA-Domestic Substances List (DSL): Amides, coco, N,N-bis(hydroxyethyl); C.I.Acid Yellow 36; Glycollic acid; Diethanolamine 
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable 
- NTP (National Toxicology Program): Non-applicable 
- Minnesota - Hazardous substances ERTK: Diethanolamine 
- Rhode Island - Hazardous substances RTK: Diethanolamine 
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Diethanolamine (100 pounds)

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

- The Toxic Substances Control Act (TSCA) 
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:

H315: Causes skin irritation 
H318: Causes serious eye damage 
H400: Very toxic to aquatic life 
H411: Toxic to aquatic life with long lasting effects 
H303: May be harmful if swallowed 
H313: May be harmful in contact with skin

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:

- Acute Tox. 4: H302 - Harmful if swallowed 
- Acute Tox. 4: H332 - Harmful if inhaled 
- Aquatic Acute 1: H400 - Very toxic to aquatic life 
- Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects 
- Carc. 2: H351 - Suspected of causing cancer 
- Eye Dam. 1: H318 - Causes serious eye damage 
- Eye Irrit. 2: H319 - Causes serious eye irritation 
- Skin Corr. 1B: H314 - Causes severe skin burns and eye damage 
- Skin Corr. 1C: H314 - Causes severe skin burns and eye damage 
- Skin Irrit. 2: H315 - Causes skin irritation 
- STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure 
- STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure (Oral) 
- STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.
SECTION 16: OTHER INFORMATION (continued)

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
## SECTION 1: IDENTIFICATION

1.1 **GHS Product identifier:** UF440 - LustraShield® with BDR® – Brake Dust Repellent 440

1.2 **Recommended use of the chemical and restrictions on use:**

   - Relevant uses: Chemical cleaning products
   - Uses advised against: All uses not specified in this section or in section 7.3

1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**

   - Cleaning Systems, Inc.
   - 1997 American Blvd
   - 54115 De Pere - United States
   - Phone.: 9203372175 - Fax: 9203379410
   - chemcompliance@cleaningsystemsinc.com
   - http://cleaningsystemsinc.com

1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

## SECTION 2: HAZARD(S) IDENTIFICATION

2.1 **Classification of the substance or mixture:**

   - **29 CFR 1910.1200:**
     - Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
     - Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
     - Eye Dam. 1: Serious eye damage, Category 1, H318
     - Skin Corr. 1B: Skin corrosion, Category 1B, H314

2.2 **Label elements:**

   - **29 CFR 1910.1200:**
     - Danger

     ![Warning symbol]

     **Hazard statements:**
     - Acute Tox. 4: H302 - Harmful if swallowed
     - Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

     **Precautionary statements:**
     - P264: Wash thoroughly after use
     - P280: Wear protective gloves/protective clothing/eye protection/face protection
     - P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
     - P303+P361+P330: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
     - P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
     - P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
     - P310: Immediately call a poison center/doctor
     - P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

2.3 **Other hazards which do not result in classification:**

   - Non-applicable

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 **Substances:**

   - Non-applicable

3.2 **Mixtures:**

   - **Chemical description:** Aqueous mixture composed of chemical products for cleaning products

   - **Components:**

   - CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>CAS:</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quaternary Ammonium Compounds</td>
<td>Proprietary</td>
<td>15 - &lt;35%</td>
</tr>
<tr>
<td>Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>Acute Tox. 4: H302; Skin Corr. 1B: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>10 - &lt;15%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>Alkoxylated Fatty Amine, Quaternary Ammonium Chloride</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td></td>
</tr>
<tr>
<td>&lt;5%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:
This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.
B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F
B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloromethane</td>
<td>8-hour TWA PEL: 100 ppm</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL: 200 ppm</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

- Mandatory hand protection
  - Protective gloves against minor risks
  - Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional / industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

- Mandatory face protection
  - Panoramic glasses against splash/projections.
  - Clean daily and disinfect periodically according to the manufacturer’s instructions.
  - Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)

E. Bodily protection

- Work clothing
  - Replace before any evidence of deterioration.

- Anti-slip work shoes
  - Replace before any evidence of deterioration.

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1 ISO 3864-1:2002</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eyewash stations</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIN 12 899</td>
<td>ISO 3864-1:2002</td>
</tr>
</tbody>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Opaque
- Color: Purple
- Odor: Solvent
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 220 °F
- Vapour pressure at 68 °F: 2294 Pa
- Vapour pressure at 122 °F: 90.68 (12.09 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1012.7 kg/m³
- Relative density at 68 °F: 1.013
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 5 - 9 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 790 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

[CONTINUED ON NEXT PAGE]
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>No applicable</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact with air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase in temp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunlight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humidity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:
- Acids: Avoid strong acids
- Water: Not applicable
- Oxidising materials: Precaution
- Combustible materials: Not applicable
- Others: Avoid alkalies or strong bases

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

### Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Chloromethane (3); Brilliant blue FCF (C.1.4290/C.I.Acid Blue 9) (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other Information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LD50 oral 960 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Alkoxylated Fatty Amine, Quaternary Ammonium Chloride</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 0.06 mg/L (72 h) N/A</td>
<td></td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>BOD5 Non-applicable</td>
<td>Concentration Non-applicable</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 82 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

Not available

12.4 Mobility in soil:

Not available

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described
SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in
direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-
dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN2735
14.2 UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID,
CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary
Ammonium Chloride)
14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to
Annex II of MARPOL 73/78 and
the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN2735
14.2 UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID,
CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary
Ammonium Chloride)
14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to
Annex II of MARPOL 73/78 and
the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN2735
14.2 UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary Ammonium Chloride)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: III
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA): Quaternary Ammonium Compounds; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: Non-applicable
   New York RTK - Substance list: Non-applicable
   Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
   CANADA-Domestic Substances List (DSL): Quaternary Ammonium Compounds; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Non-applicable
   Rhode Island - Hazardous substances RTK: Non-applicable
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H302: Harmful if swallowed

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3
SECTION 16: OTHER INFORMATION (continued)

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
# SECTION 1: IDENTIFICATION

1.1 **GHS Product identifier:** UF441 - LustraShield® with BDR® – Brake Dust Repellent 441

1.2 **Recommended use of the chemical and restrictions on use:**

   Relevant uses: Chemical cleaning products

   Uses advised against: All uses not specified in this section or in section 7.3

1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**

   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

# SECTION 2: HAZARD(S) IDENTIFICATION

2.1 **Classification of the substance or mixture:**

   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.

   - Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302
   - Eye Dam. 1: Serious eye damage, Category 1, H318
   - Skin Corr. 1B: Skin corrosion, Category 1B, H314

2.2 **Label elements:**

   29 CFR 1910.1200:
   Danger

   ![Danger Symbol]

   **Hazard statements:**
   - Acute Tox. 4: H302 - Harmful if swallowed
   - Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

   **Precautionary statements:**
   - P264: Wash thoroughly after use
   - P280: Wear protective gloves/protective clothing/eye protection/face protection
   - P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   - P303+P361+P330: IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower
   - P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   - P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   - P310: Immediately call a poison center/doctor
   - P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

   **Substances that contribute to the classification**
   - Quaternary Ammonium Compounds; Alkoxylated Fatty Amine, Quaternary Ammonium Chloride; 4-Nonylphenol, branched, ethoxylated

   **Acute Toxicity Estimate (ATE mix):**
   - 54.42 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 **Other hazards which do not result in classification:**

   Non-applicable

# SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substances:
Non-applicable

3.2 Mixtures:
   
   Chemical description: Aqueous mixture composed of chemical products for cleaning products

   Components:

   Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Quaternary Ammonium Compounds</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>Alkoxylated Fatty Amine, Quaternary Ammonium Chloride</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By inhalation:
This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
 Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
SECTION 7: HANDLING AND STORAGE (continued)

Maximum Temp.: 120 °F

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloromethane</td>
<td>8-hour TWA PEL 100 ppm</td>
</tr>
<tr>
<td>CAS: 74-87-3</td>
<td>Ceiling Values - TWA PEL 200 ppm</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>
F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Opaque
- Color: Purple
- Odor: Fruity
- Odor threshold: Non-applicable *

**Volutility:**
- Boiling point at atmospheric pressure: 224 ºF
- Vapour pressure at 68 ºF: 2271 Pa
- Vapour pressure at 122 ºF: 89.78 (11.97 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1017.9 kg/m³
- Relative density at 68 ºF: 1.018
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: 5 - 9 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 790 ºF
- Lower flammability limit: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Upper flammability limit: Non-applicable *
Explosive: Non-applicable *
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):

CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Chloromethane (3); Brilliant blue FCF (C.I.4290/C.I.Acid Blue 9) (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT)- single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>LD50 oral 960 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Alkoxylated Fatty Amine, Quaternary Ammonium Chloride</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>1759.49 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LC50</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>0.06 mg/L (72 h)</td>
<td>N/A</td>
</tr>
<tr>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>LC50</td>
<td>84.7 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>23 mg/L (48 h)</td>
<td>Daphnia magna</td>
</tr>
<tr>
<td></td>
<td>EC50</td>
<td>19.5 mg/L (72 h)</td>
<td>Desmodesmus subspicatus</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary Ammonium Compounds</td>
<td>BOD5</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>COD</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>BOD5</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>COD</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>BCF</td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>Pow Log</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Nonylphenol, branched, ethoxylated</td>
<td>Koc</td>
<td>427</td>
</tr>
<tr>
<td>CAS: 127087-87-0</td>
<td>Conclusion</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Henry</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Dry soil</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Moist soil</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transit of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:
## SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: UN2735</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary Ammonium Chloride)</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): 8 Labels: 8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: III</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: UN2735</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary Ammonium Chloride)</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): 8 Labels: 8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: III</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number: UN2735</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Alkoxylated Fatty Amine, Quaternary Ammonium Chloride)</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es): 8 Labels: 8</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable: III</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard: No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable</td>
</tr>
</tbody>
</table>

## SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
### SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>CL50</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW</td>
<td>Octanol-water partition coefficient</td>
</tr>
<tr>
<td>Koc</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF500 - Tire & Wheel 500 Green

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Liquid alkaline detergent mixture for cleaning tires and wheels in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
   29 CFR 1910.1200:
   Danger
   Hazard statements:
   Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
   Precautionary statements:
   P260: Do not breathe dust/fume/gas/mist/vapours/spray
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor
   Substances that contribute to the classification
   Surfactant Mixture; Sodium Metasilicate; Tetrasodium ethylenediaminetetraacetate; Potassium hydroxide
   Acute Toxicity Estimate (ATE mix):
   20.22 % (oral), 23.52 % (dermal), 23.52 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Proprietary</td>
<td>Surfactant Mixture</td>
<td>Acute Tox. 4: H302+H332; Eye Dam. 1: H318; Skin Corr. 1A: H314 - Danger</td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>Sodium Metasilicate</td>
<td>Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>Potassium hydroxide</td>
<td>Acute Tox. 4: H302; Skin Corr. 1A: H314 - Danger</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
SECTION 7: HANDLING AND STORAGE (continued)

B. General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³ Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional / industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Opaque
- Color: Green
- Odor: Solvent
- Odour threshold: Non-applicable *

**Vapour density at atmospheric pressure:**
- Boiling point at atmospheric pressure: 214 °F
- Vapour pressure at 68 °F: 2340 Pa
- Vapour pressure at 122 °F: 92.48 • (12.33 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1066.6 kg/m³
- Relative density at 68 °F: 1.067
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>Non Flammable (&gt;199.4 ºF)</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>460 ºF</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>9.2 Other information:</strong></td>
<td></td>
</tr>
<tr>
<td>Surface tension at 68 ºF</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Precaution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Contact with air</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Increase in temperature</td>
<td>Precaution</td>
</tr>
<tr>
<td>Sunlight</td>
<td>Precaution</td>
</tr>
<tr>
<td>Humidity</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Material</th>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available
Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:
A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3); 2,2´,2´´-nitrilotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate CAS: 64-02-8</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide CAS: 1310-58-3</td>
<td>LD50 oral 388 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>12313.53 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>39352.11 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>408.37 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>LC50 210 mg/L (96 h)</td>
<td>Brachydano rerio</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 216 mg/L (96 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>LC50 80 mg/L (48 h)</td>
<td>Gambussia affinis</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BCF 3</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Potential Low</td>
</tr>
<tr>
<td></td>
<td>Pow Log -13</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>BCF 2</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Koc 8</td>
<td>Henry</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td>1.621E-1 Pa m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td>Surface tension 2.72E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Koc 1046</td>
<td>Henry</td>
</tr>
<tr>
<td></td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in
direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-
dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN3266
14.2 UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN3266
14.2 UN proper shipping name: CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>UN3266</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Metasilicate)</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>8</td>
</tr>
<tr>
<td>Labels:</td>
<td>8</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>II</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
- The Toxic Substances Control Act (TSCA): Sodium Metasilicate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate; Potassium hydroxide
- Massachusetts RTK - Substance List: Potassium hydroxide
- New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol; Potassium hydroxide
- New York RTK - Substance list: 2-butoxyethanol; Potassium hydroxide
- Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol; Potassium hydroxide
- CANADA-Domestic Substances List (DSL): Sodium Metasilicate; 2-butoxyethanol; Tetrasodium ethylenediaminetetraacetate; Potassium hydroxide
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: 2-butoxyethanol; Potassium hydroxide
- Rhode Island - Hazardous substances RTK: 2-butoxyethanol; Potassium hydroxide
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Potassium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
- It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

### SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
- This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
- H314: Causes severe skin burns and eye damage
- H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
- The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
### SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Acute Tox. 4:</th>
<th>H302 - Harmful if swallowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4:</td>
<td>H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled</td>
</tr>
<tr>
<td>Acute Tox. 4:</td>
<td>H302+H332 - Harmful if swallowed or if inhaled</td>
</tr>
<tr>
<td>Eye Dam. 1:</td>
<td>H318 - Causes serious eye damage</td>
</tr>
<tr>
<td>Eye Irrit. 2:</td>
<td>H319 - Causes serious eye irritation</td>
</tr>
<tr>
<td>Flam. Liq. 4:</td>
<td>H227 - Combustible liquid</td>
</tr>
<tr>
<td>Met. Corr. 1:</td>
<td>H290 - May be corrosive to metals</td>
</tr>
<tr>
<td>Skin Corr. 1A:</td>
<td>H314 - Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>Skin Corr. 1B:</td>
<td>H314 - Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>Skin Irrit. 2:</td>
<td>H315 - Causes skin irritation</td>
</tr>
<tr>
<td>STOT SE 3:</td>
<td>H335 - May cause respiratory irritation</td>
</tr>
</tbody>
</table>

**Advice related to training:**

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**

- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

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Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF505 - High Alkaline Cleaner 505

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Liquid alkaline detergent mixture for cleaning tires and wheels in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1A: Skin corrosion, Category 1A, H314
STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

2.2 Label elements:

29 CFR 1910.1200:
Danger

Hazard statements:
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
STOT SE 3: H335 - May cause respiratory irritation

Precautionary statements:
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P403+P233: Store in a well-ventilated place. Keep container tightly closed
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Ethoxylated Alcohol; 2-aminoethanol; Tetrasodium ethylenediaminetetraacetate; Sodium hydroxide

Acute Toxicity Estimate (ATE mix):
29.2 % (oral), 42.47 % (dermal), 42.47 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>CAS</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>141-43-5</td>
<td>Proprietary Ethoxylated Alcohol</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger</td>
<td></td>
</tr>
<tr>
<td>64-02-8</td>
<td>2-aminoethanol</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Flam. Liq. 4: H227; Skin Corr. 1B: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin Corr. 1A: H314 - Danger</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>111-76-2</td>
<td>2-butoxyethanol</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By Inhalation:
Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By Skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By Eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By Ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage

- CONTINUED ON NEXT PAGE -
SECTION 7: HANDLING AND STORAGE (continued)

Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>8-hour TWA PEL 3 ppm Ceiling Values - TWA PEL 6 mg/m³</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL 2 mg/m³ Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Opaque
- Color: Blue
- Odor: Not available
- Odour threshold: Non-applicable *

**Volutility:**
- Boiling point at atmospheric pressure: 225 ºF
- Vapour pressure at 68 ºF: 2237 Pa
- Vapour pressure at 122 ºF: 88.48 (11.8 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1063.3 kg/m³
- Relative density at 68 ºF: 1.063
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: >13 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *
Flammability:
Flash Point: Non Flammable (>199.4 °F)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: >460 °F
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *
Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *
*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:
A- Ingestion (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3); Diethanolamine (2B)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1025 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Ethoxylated Alcohol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50 oral</td>
<td>1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>LD50 dermal</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

**Acute Toxicity Estimate (ATE mix):**

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2016.41 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>6303.39 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>67.12 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

#### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td></td>
<td>Cyprinus carpio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>349 mg/L (96 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC50</td>
<td>65 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>EC50</td>
<td>22 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td>121 mg/L (96 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC50</td>
<td>140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td></td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>189 mg/L (48 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC50</td>
<td>33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>1490 mg/L (96 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC50</td>
<td>1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>911 mg/L (72 h)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>BOD5 Non-applicable</td>
<td>Concentration 20 mg/L</td>
</tr>
<tr>
<td>COD Non-applicable</td>
<td></td>
<td>21 days</td>
</tr>
<tr>
<td>BOD5/COD Non-applicable</td>
<td></td>
<td>90 %</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>COD 2.2 g O2/g</td>
<td></td>
<td>14 days</td>
</tr>
<tr>
<td>BOD5/COD 0.32</td>
<td></td>
<td>96 %</td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>BCF</th>
<th>Pow Log</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td>3</td>
<td>-1.31</td>
<td>Low</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>2</td>
<td>-1.3</td>
<td>Low</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>3</td>
<td>0.83</td>
<td>Low</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td>Koc 0.27</td>
<td>Henry 3.7E-5 Pa m^3/mol</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 5.025E-2 N/m (77 ºF)</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry 0E+0 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
<td></td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA) : Ethoxylated Alcohol ; 2-aminoethanol ; Tetrasodium ethylenediaminetetraacetate ; Sodium hydroxide ; 2-butoxyethanol
   Massachusetts RTK - Substance List: Sodium hydroxide
   New Jersey Worker and Community Right-to-Know Act: 2-aminoethanol ; Sodium hydroxide ; 2-butoxyethanol
   New York RTK - Substance list: 2-aminoethanol ; Sodium hydroxide ; 2-butoxyethanol
   Pennsylvania Worker and Community Right-to-Know Law: 2-aminoethanol ; Sodium hydroxide ; 2-butoxyethanol
   CANADA-Domestic Substances List (DSL): Ethoxylated Alcohol ; 2-aminoethanol ; Tetrasodium ethylenediaminetetraacetate ; Sodium hydroxide ; 2-butoxyethanol
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: 2-aminoethanol ; Sodium hydroxide ; 2-butoxyethanol
   Rhode Island - Hazardous substances RTK: 2-aminoethanol ; Sodium hydroxide ; 2-butoxyethanol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
SECTION 15: REGULATORY INFORMATION (continued)

The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage
H335: May cause respiratory irritation

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF515 - High pH - Alkaline Extender

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products
Alkaline additive for vehicle wash applications.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Repr. 1B: Reproductive toxicity, Category 1B, H360
Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:

29 CFR 1910.1200:
Danger

Hazard statements:
Repr. 1B: H360 - May damage fertility or the unborn child
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

Precautionary statements:
P201: Obtain special instructions before use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313: IF exposed or concerned: Get medical advice/attention
P310: Immediately call a poison center/doctor
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Sodium hydroxide; Potassium hydroxide; Tetrasodium ethylenediaminetetraacetate; 2-aminoethanol

Acute Toxicity Estimate (ATE mix):
22.87 % (oral), 32.19 % (dermal), 32.19 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. Exact percentage values for components are proprietary in accordance with 29 CFR 1910.1200(i). Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>CAS</th>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-73-2</td>
<td>Sodium hydroxide</td>
<td>Skin Corr. 1A; H314 - Danger</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>1310-56-3</td>
<td>Potassium hydroxide</td>
<td>Acute Tox. 4; H302; Skin Corr. 1A; H314 - Danger</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>64-02-8</td>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Acute Tox. 4; Eye Dam. 1; H318 - Danger</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>141-43-5</td>
<td>2-aminoethanol</td>
<td>Acute Tox. 4; H302+H312+H332; Flam. Liq. 4; H227; Skin Corr. 1B; H314 - Danger</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>1303-96-4</td>
<td>Disodium tetraborate decahydrate</td>
<td>Repr. 1B; H360 - Danger</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

Other information:
Keep spills away from storm drains, surface water and soil. Small spills - Neutralize with dilute acid and rinse to drain with copious amounts of water. Large spills - Contain for reclamation or for disposal neutralize with dilute acid.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. - Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. - Technical recommendations to prevent ergonomic and toxicological risks
PREGNANT WOMEN SHOULD NOT BE EXPOSED TO THIS PRODUCT. Transfer in fixed places that comply with the necessary security conditions (emergency showers and eyewash stations in close proximity), using personal protection equipment, especially on the hands and face (See section 8). Limit manual transfers to containers of small amounts. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
SECTION 7: HANDLING AND STORAGE (continued)

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F
B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

Other information:
Recommended indoor storage, no exposure to sunlight or extreme environments. Best if stored in original container at temperatures below 120 F.

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>8-hour TWA PEL: 2 mg/m³ Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td></td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>8-hour TWA PEL: 3 ppm Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Ocular and facial protection

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Image]</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Image]</td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Amber
- Odor: Not available
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 214 ºF
- Vapour pressure at 68 °F: 2329 Pa
- Vapour pressure at 122 °F: 92.07 (12.27 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1229.2 kg/m³
- Relative density at 68 °F: 1.229
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

- pH: >13 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

Flammability:
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 1224 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

Explosive:
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

- Shock and friction: Not applicable
- Contact with air: Not applicable
- Increase in temperature: Precaution
- Sunlight: Precaution
- Humidity: Not applicable

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

- CONTINUED ON NEXT PAGE -
The experimental information related to the toxicological properties of the product itself is not available.

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

**A- Ingestion (acute effect):**
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

**B- Inhalation (acute effect):**
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

**C- Contact with the skin and the eyes (acute effect):**
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

**D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):**
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: Diethanolamine (2B)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: May damage fertility or the unborn child.

**E- Sensitizing effects:**
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**F- Specific target organ toxicity (STOT) - single exposure:**
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**G- Specific target organ toxicity (STOT)-repeated exposure:**
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
  - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**H- Aspiration hazard:**
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**Other information:**
Non-applicable

**Specific toxicology information on the substances:**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>LD50 dermal 1025 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/l (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LD50 oral 1700 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td>LD50 oral 388 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Disodium tetraborate decahydrate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 1303-96-4</td>
<td>LD50 oral 4500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 10000 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

#### Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>3554.03 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>35106.25 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>378.75 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

#### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>LC50 189 mg/L (48 h)</td>
<td>Leuciscus idus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1310-73-2</td>
<td>EC50 33 mg/L</td>
<td>Crangon crangon</td>
<td>Crustacean</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 1310-58-3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>LC50 121 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>EC50 140 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disodium tetraborate decahydrate</td>
<td>LC50 178 mg/L (72 h)</td>
<td>Carassius auratus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1303-96-4</td>
<td>EC50 1085 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 158 mg/L (96 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td>BOD5 Concentration 20 mg/L</td>
<td></td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>COD Period 21 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BOD5/COD % Biodegradable 90 %</td>
<td></td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>BCF 2</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Pow Log -13</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>2-aminoethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>Pow Log -1.31</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

#### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium ethylenediaminetetraacetate</td>
<td>Koc 1046</td>
<td>Henry UE=0 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 64-02-8</td>
<td>Conclusion Low</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension Non-applicable</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>
### SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td>Koc 0.27</td>
<td>Henry 3.7E-5 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 5.025E-2 N/m (77 ºF)</td>
<td>Moist soil No</td>
</tr>
</tbody>
</table>

#### 12.5 Results of PBT and vPvB assessment:
Non-applicable

#### 12.6 Other adverse effects:
Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Disposal methods:
**Waste management (disposal and evaluation):**
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

### SECTION 14: TRANSPORT INFORMATION

#### Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 **UN number:** UN1824
14.2 **UN proper shipping name:** SODIUM HYDROXIDE SOLUTION
14.3 **Transport hazard class(es):** 8
    **Labels:** 8
14.4 **Packing group, if applicable:** II
14.5 **Environmental hazard:** No
14.6 **Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**
    **Physico-Chemical properties:** see section 9
14.7 **Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable

#### Transport of dangerous goods by sea:
With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2018:

14.1 UN number: UN1824
14.2 UN proper shipping name: SODIUM HYDROXIDE SOLUTION
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA) : Sodium hydroxide ; Potassium hydroxide ; Tetrasodium ethylenediaminetetraacetate ; 2-aminoethanol ; Disodium tetraborate decahydrate
Massachusetts RTK - Substance List: Sodium hydroxide ; Potassium hydroxide
New Jersey Worker and Community Right-to-Know Act: Sodium hydroxide ; Potassium hydroxide ; 2-aminoethanol ; Disodium tetraborate decahydrate
New York RTK - Substance list: Sodium hydroxide ; Potassium hydroxide ; 2-aminoethanol ; Disodium tetraborate decahydrate
Pennsylvania Worker and Community Right-to-Know Law: Sodium hydroxide ; Potassium hydroxide ; 2-aminoethanol ; Disodium tetraborate decahydrate
CANADA-Domestic Substances List (DSL): Sodium hydroxide ; Potassium hydroxide ; Tetrasodium ethylenediaminetetraacetate ; 2-aminoethanol ; Disodium tetraborate decahydrate
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesosta - Hazardous substances ERTK: Sodium hydroxide ; Potassium hydroxide ; 2-aminoethanol ; Disodium tetraborate decahydrate
Rhode Island - Hazardous substances RTK: Sodium hydroxide ; Potassium hydroxide ; 2-aminoethanol ; Disodium tetraborate decahydrate
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium hydroxide (1000 pounds) ; Potassium hydroxide (1000 pounds)

Specific provisions in terms of protecting people or the environment:
SECTION 15: REGULATORY INFORMATION (continued)

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage
H360: May damage fertility or the unborn child
H314: Causes severe skin burns and eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Flam. Liq. 4: H227 - Combustible liquid
Repr. 1B: H360 - May damage fertility or the unborn child
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current USA legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

END OF SAFETY DATA SHEET
1.1 GHS Product identifier: UF520 - BugGoo® 520

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Insect removing detergent in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Repr. 1B: Reproductive toxicity, Category 1B, H360
   Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
   29 CFR 1910.1200:
   Danger
   
   Hazard statements:
   Repr. 1B: H360 - May damage fertility or the unborn child
   Skin Corr. 1A: H314 - Causes severe skin burns and eye damage

   Precautionary statements:
   P201: Obtain special instructions before use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P308+P313: IF exposed or concerned: Get medical advice/attention
   P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

   Substances that contribute to the classification
   Surfactant Mixture; Ethanediol; 1-aminopropan-2-ol; Sodium Metasilicate

   Acute Toxicity Estimate (ATE mix):
   22.68 % (oral) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Ethanediol</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: 78-96-6</td>
<td>1-aminopropan-2-ol</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Flam. Liq. 4: H227; Skin Corr. 1B: H314 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>Sodium Metasilicate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318; Met. Corr. 1: H200; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 1303-96-4</td>
<td>Disodium tetraborate decahydrate</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Repr. 1B: H360 - Danger</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
PREGNANT WOMEN SHOULD NOT BE EXPOSED TO THIS PRODUCT. Transfer in fixed places that comply with the necessary security conditions (emergency showers and eyewash stations in close proximity), using personal protection equipment, especially on the hands and face (See section 8). Limit manual transfers to containers of small amounts. Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)
SECTION 7: HANDLING AND STORAGE (continued)

7.2 Conditions for safe storage, including any incompatibilities:
A. Technical measures for storage
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F
B. General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol 56-81-5</td>
<td>8-hour TWA PEL: 5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands
   As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application
   Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

D. Ocular and facial protection
   Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection
   Replace before any evidence of deterioration.

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Translucent
- Color: Yellowish
- Odor: Not available
- Odor threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 234 °F
- Vapour pressure at 68 °F: 2161 Pa
- Vapour pressure at 122 °F: 85.46 (11.39 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1086.3 kg/m³
- Relative density at 68 °F: 1.086
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: >12
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability:</td>
<td>Non Flammable (&gt;199.4 °F)</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature:</td>
<td>703 °F</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Lower explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>9.2 Other information:</td>
<td></td>
</tr>
<tr>
<td>Surface tension at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Precaution</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Contact with air</td>
<td>Precaution</td>
<td></td>
</tr>
<tr>
<td>Increase in temperature</td>
<td>Precaution</td>
<td></td>
</tr>
<tr>
<td>Sunlight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humidity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Category</th>
<th>Precaution</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acids</td>
<td>Avoid strong acids</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxidising materials</td>
<td>Precaution</td>
<td></td>
</tr>
<tr>
<td>Combustible materials</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:
A- Ingestion (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: May damage fertility or the unborn child

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>LD50 dermal 9530 mg/kg</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-aminoopropan-2-ol</td>
<td>LD50 oral 2100 mg/kg</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>CAS: 78-96-6</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disodium tetraborate decahydrate</td>
<td>LD50 oral 4500 mg/kg</td>
<td>Rat</td>
<td></td>
</tr>
<tr>
<td>CAS: 1303-96-4</td>
<td>LD50 dermal 10000 mg/kg</td>
<td>Rabbit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
</table>

- CONTINUED ON NEXT PAGE -
### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Mode of Exposure</th>
<th>Value</th>
<th>Calculation Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>4295.56 mg/kg</td>
<td>(Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg</td>
<td>(Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h)</td>
<td>(Calculation method)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mode of Exposure</th>
<th>Value</th>
<th>Calculation Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>22.68 %</td>
<td>(Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

#### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>LC50 53000 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>EC50 51000 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 24000 mg/L (168 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
<tr>
<td>1-aminopropan-2-ol</td>
<td>LC50 210 mg/L (96 h)</td>
<td>Carassius auratus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 78-96-6</td>
<td>EC50 Non-applicable</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 23 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>LC50 210 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>EC50 216 mg/L (96 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
<tr>
<td>Disodium tetraborate decahydrate</td>
<td>LC50 178 mg/L (72 h)</td>
<td>Carassius auratus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 1303-86-4</td>
<td>EC50 1085 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 158 mg/L (96 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
</tbody>
</table>

#### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>BOD5 0.47 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>COD 1.29 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.36</td>
<td>% Biodegradable 90 %</td>
</tr>
</tbody>
</table>

#### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>BCF 10</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Pow Log -1.36</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>1-aminopropan-2-ol</td>
<td>BCF 0.11</td>
</tr>
<tr>
<td>CAS: 78-96-6</td>
<td>Pow Log -0.96</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

#### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanediol</td>
<td>Koc 0</td>
<td>Henry 1.327E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 107-21-1</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 4.989E-2 N/m (77 ºF)</td>
<td>Moist soil No</td>
</tr>
<tr>
<td>1-aminopropan-2-ol</td>
<td>Koc Non-applicable</td>
<td>Henry Non-applicable</td>
</tr>
<tr>
<td>CAS: 78-96-6</td>
<td>Conclusion Non-applicable</td>
<td>Dry soil Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Surface tension 3.631E-2 N/m (77 ºF)</td>
<td>Moist soil Non-applicable</td>
</tr>
</tbody>
</table>

#### 12.5 Results of PBT and vPvB assessment:

Non-applicable

#### 12.6 Other adverse effects:

Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Disposal methods:

Waste management (disposal and evaluation):

- CONTINUED ON NEXT PAGE -
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and
   the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Ethanediol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Ethanediol
   The Toxic Substances Control Act (TSCA) : Ethanediol ; 1-aminopropan-2-ol ; Sodium Metasilicate ; Disodium tetraborate
   decahydrate
   Massachusetts RTK - Substance List: Ethanediol
   New Jersey Worker and Community Right-to-Know Act: Ethanediol ; 1-aminopropan-2-ol ; Disodium tetraborate decahydrate
   New York RTK - Substance list: Ethanediol ; Disodium tetraborate decahydrate
   Pennsylvania Worker and Community Right-to-Know Law: Ethanediol ; 1-aminopropan-2-ol ; Disodium tetraborate decahydrate
   CANADA-Domestic Substances List (DSL): Ethanediol ; 1-aminopropan-2-ol ; Sodium Metasilicate ; Disodium tetraborate
   decahydrate
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: Ethanediol ; Disodium tetraborate decahydrate
   Rhode Island - Hazardous substances RTK: Ethanediol ; Disodium tetraborate decahydrate
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Ethanediol (5000 pounds)

Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
   circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
   product.

Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
   This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
   H314: Causes severe skin burns and eye damage
   H318: Causes serious eye damage
   H360: May damage fertility or the unborn child

Texts of the legislative phrases mentioned in section 3:
   The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the
   individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Eye Dam. 1: H318 - Causes serious eye damage
Flam. Liq. 4: H227 - Combustible liquid
Met. Corr. 1: H290 - May be corrosive to metals
Repr. 1B: H360 - May damage fertility or the unborn child
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
UF540 - Rust-Ban® 540

Safety data sheet
according to 29 CFR 1910.1200

SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF540 - Rust-Ban® 540

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Under carriage rust inhibitor for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Acute Tox. 4: Acute toxicity if swallowed, Category 4, H302

2.2 Label elements:
29 CFR 1910.1200:
Warning

Hazard statements:
Acute Tox. 4: H302 - Harmful if swallowed

Precautionary statements:
P264: Wash thoroughly after use
P270: Do no eat, drink or smoke when using this product
P301+P312: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330: Rinse mouth
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging
waste respectively

Substances that contribute to the classification
Sodium nitrite

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity
and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of
§1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 7632-00-0</td>
<td>Sodium nitrite</td>
<td>Acute Tox. 3: H301; Ox. Sol. 3: H272 - Danger</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of modifications on the skin (stinging, redness, rashes, blisters,…), seek medical advice with this Safety data Sheet

By eye contact:

This product does not contain substances classified as hazardous for eye contact. Rinse eyes thoroughly for at least 15 minutes with lukewarm water, ensuring that the person affected does not rub or close their eyes.

By ingestion/ aspiration:

Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,…)

Additional provisions:

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 ºF
Maximum Temp.: 120 ºF

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace
There are no occupational exposure limits for the substances contained in the product

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional / industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 68 °F: Liquid

*Not relevant due to the nature of the product, not providing information property of its hazards.
### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Transparent</td>
</tr>
<tr>
<td>Color</td>
<td>Orange</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Volatile:</strong></td>
<td></td>
</tr>
<tr>
<td>Boiling point at atmospheric pressure:</td>
<td>212 °F</td>
</tr>
<tr>
<td>Vapour pressure at 68 °F:</td>
<td>2350 Pa</td>
</tr>
<tr>
<td>Vapour pressure at 122 °F:</td>
<td>92.87 (12.38 kPa)</td>
</tr>
<tr>
<td>Evaporation rate at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Product description:</strong></td>
<td></td>
</tr>
<tr>
<td>Density at 68 °F:</td>
<td>1174.6 kg/m³</td>
</tr>
<tr>
<td>Relative density at 68 °F:</td>
<td>1.175</td>
</tr>
<tr>
<td>Dynamic viscosity at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Kinematic viscosity at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Kinematic viscosity at 104 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Concentration</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>pH</td>
<td>7.5 - 9.5 at 100 %</td>
</tr>
<tr>
<td>Vapour density at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Solubility in water at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Solubility properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Melting point/freezing point:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Oxidising properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Flammability:</strong></td>
<td></td>
</tr>
<tr>
<td>Flash Point:</td>
<td>Non Flammable (&gt;199.4 °F)</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoinignition temperature:</td>
<td>707 °F</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

### SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

**10.4 Conditions to avoid:**

Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

**10.5 Incompatible materials:**

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Avoid direct impact</td>
<td>Precaution</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

**10.6 Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects:**

The experimental information related to the toxicological properties of the product itself is not available

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- **Ingestion (acute effect):**

- Acute toxicity: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

B- **Inhalation (acute effect):**

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- **Contact with the skin and the eyes (acute effect):**

- Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

D- **CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):**

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- **Sensitizing effects:**

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- **Specific target organ toxicity (STOT) - single exposure:**
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other Information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium nitrite</td>
<td>LD50 oral 85 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 7632-00-0</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral 358.83 mg/kg (Calculation method)</td>
<td>0 %</td>
</tr>
<tr>
<td>Dermal &gt;5000 mg/kg (Calculation method)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Inhalation &gt;20 mg/L (4 h) (Calculation method)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
Not available

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:
Not available

12.4 Mobility in soil:
Not available

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
### SECTION 13: DISPOSAL CONSIDERATIONS (continued)

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

### SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number:</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by sea:

With regard to IMDG 38-16:

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number:</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
</tr>
<tr>
<td>14.4</td>
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</tr>
<tr>
<td>14.5</td>
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</tr>
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<td>14.6</td>
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</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
</tr>
</tbody>
</table>

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>14.1</td>
<td>UN number:</td>
</tr>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
</tr>
<tr>
<td></td>
<td>Physico-Chemical properties:</td>
</tr>
<tr>
<td>14.7</td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:  

- CONTINUED ON NEXT PAGE -
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Sodium nitrite  
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable  
The Toxic Substances Control Act (TSCA): Sodium nitrite  
Massachusetts RTK - Substance List: Sodium nitrite  
New Jersey Worker and Community Right-to-Know Act: Sodium nitrite  
New York RTK - Substance list: Sodium nitrite  
Pennsylvania Worker and Community Right-to-Know Law: Sodium nitrite  
CANADA-Domestic Substances List (DSL): Sodium nitrite  
CANADA-Non-Domestic Substances List (NDSL): Non-applicable  
NTP (National Toxicology Program): Non-applicable  
Minnesota - Hazardous substances ERTK: Non-applicable  
Rhode Island - Hazardous substances RTK: Non-applicable  
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Sodium nitrite (100 pounds)  

Specific provisions in terms of protecting people or the environment:  
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.  
Other legislation:  
The Toxic Substances Control Act (TSCA)  
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)  

SECTION 16: OTHER INFORMATION  

Legislation related to safety data sheets:  
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets  

Texts of the legislative phrases mentioned in section 2:  
H302: Harmful if swallowed  

Texts of the legislative phrases mentioned in section 3:  
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3  

29 CFR 1910.1200:  
Acute Tox. 3: H301 - Toxic if swallowed  
Ox. Sol. 3: H272 - May intensify fire, oxidiser  

Advice related to training:  
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.  

Principal bibliographical sources:  
Occupational Safety & Health Administration (OSHA).  

Abbreviations and acronyms:  
IMDG: International maritime dangerous goods code  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organisation  
COD: Chemical Oxygen Demand  
BOD5: 5-day biochemical oxygen demand  
BCF: Bioconcentration factor  
LD50: Lethal Dose 50  
CL50: Lethal Concentration 50  
EC50: Effective concentration 50  
Log-POW: Octanol-water partition coefficient  
Koc: Partition coefficient of organic carbon  

Date of compilation: 12/13/2018   Version: 1
Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, it is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier:  UF600 - Peach 600

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Water based fragrance for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number:  1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318

2.2 Label elements:
   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Eye Dam. 1: H318 - Causes serious eye damage

   Precautionary statements:
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor

   Substances that contribute to the classification
   Surfactant Mixture

   Acute Toxicity Estimate (ATE mix):
   9.47 % (oral), 9.47 % (dermal), 9.47 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:
   Chemical description: Aqueous mixture composed of chemical products for cleaning products
   Components:

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By Inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B. General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL: 50 ppm, Ceiling Values - TWA PEL: 240 mg/m³</td>
</tr>
</tbody>
</table>

### 8.2 Appropriate engineering controls:

**A. Individual protection measures, such as personal protective equipment**

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

**B. Respiratory protection**

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

**C. Specific protection for the hands**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>🧵</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

**D. Ocular and facial protection**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>🧼</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

**E. Bodily protection**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>💗</td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>💜</td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

**F. Additional emergency measures**

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Orange
- Odor: Fruity
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 215 ºF
- Vapour pressure at 68 ºF: 2338 Pa
- Vapour pressure at 122 ºF: 92.4 (12.32 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1025.3 kg/m³
- Relative density at 68 ºF: 1.025
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: 9 - 10 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 ºF: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

- CONTINUED ON NEXT PAGE -
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>47133.33 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>35333.33 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>366.67 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32 %</td>
<td>% Biodegradable</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
<td>1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Very High</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>Moist soil</td>
</tr>
<tr>
<td></td>
<td>2.729E-2 N/m (77 °F)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA) : 2-butoxyethanol
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
   New York RTK - Substance list: 2-butoxyethanol
   Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
   CANADA-Domestic Substances List (DSL): 2-butoxyethanol
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: 2-butoxyethanol
   Rhode Island - Hazardous substances RTK: 2-butoxyethanol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)
SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself, they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety date sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF602 - Bold & Fresh 602

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Water based fragrance for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number:
   1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Carc. 2: Carcinogenicity, Category 2, H351
   Eye Dam. 1: Serious eye damage, Category 1, H318

2.2 Label elements:
   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Carc. 2: H351 - Suspected of causing cancer
   Eye Dam. 1: H318 - Causes serious eye damage

   Precautionary statements:
   P201: Obtain special instructions before use
   P202: Do not handle until all safety precautions have been read and understood
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P306+P313: IF exposed or concerned: Get medical advice/attention
   P310: Immediately call a poison center/doctor
   P405: Store locked up
   P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

   Substances that contribute to the classification
   Alcohols,C12-14-secondary, ethoxylated; Amides, coco, N,N-bis(hydroxyethyl)

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 84133-50-6</td>
<td>Alcohols, C12-14-secondary, ethoxylated</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
   Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
   Maintain order and cleanliness where dangerous products are used.
B. - Technical recommendations for the prevention of fires and explosions
   Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C. - Technical recommendations to prevent ergonomic and toxicological risks
   Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D. - Technical recommendations to prevent environmental risks
   It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
   Minimum Temp.: -4 °F
   Maximum Temp.: 120 °F
B. - General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

There are no occupational exposure limits for the substances contained in the product

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,….) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>![PPE icon]</td>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional / industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>![PPE icon]</td>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>![PPE icon]</td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>![PPE icon]</td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Turquoise
- Odor: Cologne
- Odour threshold: Non-applicable *

**Volatility:**
- Boiling point at atmospheric pressure: 212 ºF
- Vapour pressure at 68 ºF: 2350 Pa
- Vapour pressure at 122 ºF: 92.87 (12.38 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: Non-applicable *
- Relative density at 68 ºF: Non-applicable *
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: 10 - 11 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 615 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

**9.2 Other information:**
- Surface tension at 68 ºF: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

---

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.
SECTION 10: STABILITY AND REACTIVITY (continued)

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.
  - IARC: Amides, coco, N,N-bis(hydroxyethyl) (2B); Diethanolamine (2B); 2,2',2''-nitroletrianol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

CONTINUED ON NEXT PAGE
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amides, coco, N,N-bis(hydroxyethyl) CAS: 68603-42-9</td>
<td>LD50 oral 12200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral &gt;5000 mg/kg (Calculation method)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Dermal &gt;5000 mg/kg (Calculation method)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Inhalation &gt;20 mg/L (4 h) (Calculation method)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amides, coco, N,N-bis(hydroxyethyl) CAS: 68603-42-9</td>
<td>LC50 3.6 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 4.2 mg/L (34 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 2.2 mg/L (96 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

Not available

12.3 Bioaccumulative potential:

Not available

12.4 Mobility in soil:

Not available

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group, if applicable: | Non-applicable |
| 14.5 Environmental hazard: | No |

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group, if applicable: | Non-applicable |
| 14.5 Environmental hazard: | No |

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group, if applicable: | Non-applicable |
| 14.5 Environmental hazard: | No |

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable
**SECTION 14: TRANSPORT INFORMATION (continued)**

14.1 UN number: Non-applicable  
14.2 UN proper shipping name: Non-applicable  
14.3 Transport hazard class(es): Non-applicable  
   Labels: Non-applicable  
14.4 Packing group, if applicable: Non-applicable  
14.5 Environmental hazard: No  
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises  
   Physico-Chemical properties: see section 9  
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

**SECTION 15: REGULATORY INFORMATION**

15.1 Safety, health and environmental regulations specific for the product in question:  
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable  
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable  
   The Toxic Substances Control Act (TSCA): Alcohols,C12-14-secondary, ethoxylated; Amides, coco, N,N-bis(hydroxyethyl)  
   Massachusetts RTK - Substance List: Non-applicable  
   New Jersey Worker and Community Right-to-Know Act: Non-applicable  
   New York RTK - Substance list: Non-applicable  
   Pennsylvania Worker and Community Right-to-Know Law: Non-applicable  
   CANADA-Domestic Substances List (DSL): Alcohols,C12-14-secondary, ethoxylated; Amides, coco, N,N-bis(hydroxyethyl)  
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable  
   NTP (National Toxicology Program): Non-applicable  
   Minnesota - Hazardous substances ERTK: Non-applicable  
   Rhode Island - Hazardous substances RTK: Non-applicable  
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable  

Specific provisions in terms of protecting people or the environment:  
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:  
The Toxic Substances Control Act (TSCA)  
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

**SECTION 16: OTHER INFORMATION**

Legislation related to safety data sheets:  
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:  
H318: Causes serious eye damage  
H351: Suspected of causing cancer  

Texts of the legislative phrases mentioned in section 3:  
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:  
Carc. 2: H351 - Suspected of causing cancer  
Eye Dam. 1: H318 - Causes serious eye damage  
Eye Irrit. 2: H319 - Causes serious eye irritation  
Skin Irrit. 2: H315 - Causes skin irritation

- CONTINUED ON NEXT PAGE -
**Advice related to training:**
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**
Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF602 - Bold & Fresh 602

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Water based fragrance for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Carc. 2: Carcinogenicity, Category 2, H351
Eye Dam. 1: Serious eye damage, Category 1, H318

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Carc. 2: H351 - Suspected of causing cancer
Eye Dam. 1: H318 - Causes serious eye damage

Precautionary statements:
P201: Obtain special instructions before use
P202: Do not handle until all safety precautions have been read and understood
P280: Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313: IF exposed or concerned: Get medical advice/attention
P310: Immediately call a poison center/doctor
P405: Store locked up
P501: Dispose of contents and/or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Alcohols,C12-14-secondary, ethoxylated; Amides, coco, N,N-bis(hydroxyethyl)

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 84133-50-6</td>
<td>Alcohols, C12-14-secondary, ethoxylated</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>Carc. 2: H351; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
   Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B. - Technical recommendations for the prevention of fires and explosions
   Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C. - Technical recommendations to prevent ergonomic and toxicological risks
   Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D. - Technical recommendations to prevent environmental risks
   It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
   Minimum Temp.: -4 ºF
   Maximum Temp.: 120 ºF

B. - General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
   Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace
## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

There are no occupational exposure limits for the substances contained in the product.

### 8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mandatory hand protection" /></td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Mandatory face protection" /></td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Work clothing" /></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td><img src="image" alt="Anti-slip work shoes" /></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>
| ![Emergency shower](image) | ANSI Z358-1  
ISO 3864-1:2002 | ![Eyewash stations](image) | DIN 12 899  
ISO 3864-1:2002 |

### Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties:

*Not relevant due to the nature of the product, not providing information property of its hazards.*
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Turquoise
- Odor: Cologne
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 212 °F
- Vapour pressure at 68 °F: 2350 Pa
- Vapour pressure at 122 °F: 92.87 (12.38 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: Non-applicable *
- Relative density at 68 °F: Non-applicable *
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 10 - 11 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 615 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.
SECTION 10: STABILITY AND REACTIVITY (continued)

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th></th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.
  - IARC: Amides, coco, N,N-bis(hydroxyethyl) (2B); Diethanolamine (2B); 2,2',2''-nitrolotriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>LD50 oral 12200 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
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</table>

Acute Toxicity Estimate (ATE mix):

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<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
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</thead>
<tbody>
<tr>
<td>Oral</td>
<td>&gt;5000 mg/kg (Calculation method) Non-applicable</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method) Non-applicable</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method) Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amides, coco, N,N-bis(hydroxyethyl)</td>
<td>LC50 3.6 mg/L (96 h)</td>
<td>Brachydanio rerio</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 68603-42-9</td>
<td>EC50 4.2 mg/L (34 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 2.2 mg/L (96 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

Not available

12.3 Bioaccumulative potential:

Not available

12.4 Mobility in soil:

Not available

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

- CONTINUED ON NEXT PAGE -
13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in
direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-
dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

---

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:
### SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6</td>
<td>Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td></td>
<td>Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### SECTION 15: REGULATORY INFORMATION

#### 15.1 Safety, health and environmental regulations specific for the product in question:
- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
- California Proposition 65: Non-applicable
- The Toxic Substances Control Act (TSCA): Alcohols, C12-14-secondary, ethoxylated; Amides, coco, N,N-bis(hydroxyethyl)
- Massachusetts RTK - Substance List: Non-applicable
- New Jersey Worker and Community Right-to-Know Act: Non-applicable
- New York RTK - Substance list: Non-applicable
- Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
- CANADA-Domestic Substances List (DSL): Alcohols, C12-14-secondary, ethoxylated; Amides, coco, N,N-bis(hydroxyethyl)
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: Non-applicable
- Rhode Island - Hazardous substances RTK: Non-applicable
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

#### Specific provisions in terms of protecting people or the environment:
- It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

#### Other legislation:
- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

### SECTION 16: OTHER INFORMATION

#### Legislation related to safety data sheets:
- This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

#### Texts of the legislative phrases mentioned in section 2:
- H318: Causes serious eye damage
- H351: Suspected of causing cancer

#### Texts of the legislative phrases mentioned in section 3:
- The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

#### 29 CFR 1910.1200:
- Carc. 2: H351 - Suspected of causing cancer
- Eye Dam. 1: H318 - Causes serious eye damage
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Skin Irrit. 2: H315 - Causes skin irritation
SECTION 16: OTHER INFORMATION (continued)

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF603 - Lemon 603

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Water based fragrance for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Eye Dam. 1: H318 - Causes serious eye damage

Precautionary statements:
P280: Wear protective gloves/protective clothing/eye protection/face protection
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor

Substances that contribute to the classification
Surfactant Mixture

Acute Toxicity Estimate (ATE mix):
9.59 % (oral), 9.59 % (dermal), 9.59 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture</td>
<td>Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A. - Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.
B. - Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C. - Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D. - Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A. - Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F
B. - General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace
8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 ºF: Liquid
Appearance: Transparent
Color: Yellowish
Odor: Fruity
Odour threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: 217 ºF
Vapour pressure at 68 ºF: 2324 Pa
Vapour pressure at 122 ºF: 91.87 (12.25 kPa)
Evaporation rate at 68 ºF: Non-applicable *

Product description:
Density at 68 ºF: 1020.8 kg/m³
Relative density at 68 ºF: 1.021
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: 8 - 9 at 100 %
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 ºF: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
  - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
  - Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
  - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
  - Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
  - Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
  - Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
  - Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
    IARC: 2-butoxyethanol (3)
  - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
  - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>20304.16 mg/kg (Calculation method) 9.59 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>16232.77 mg/kg (Calculation method) 9.59 %</td>
</tr>
<tr>
<td>Inhalation</td>
<td>167.94 mg/L (4 h) (Calculation method) 9.59 %</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Koc</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion: Very High</td>
<td>Dry soil: No</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>Moist soil: Yes</td>
</tr>
</tbody>
</table>

| 12.5 Results of PBT and vPvB assessment: |
| Non-applicable |

| 12.6 Other adverse effects: |
| Not described |

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in
direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-
dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

| 14.1 UN number: | Non-applicable |
| 14.2 UN proper shipping name: | Non-applicable |
| 14.3 Transport hazard class(es): | Non-applicable |
| Labels: | Non-applicable |
| 14.4 Packing group, if applicable: | Non-applicable |
| 14.5 Environmental hazard: | No |
| 14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises |
| Physico-Chemical properties: | see section 9 |
| 14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Non-applicable |

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Transport of dangerous goods by air:
   With regard to IATA/ICAO 2019:
   14.1 UN number: Non-applicable
   14.2 UN proper shipping name: Non-applicable
   14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
   14.4 Packing group, if applicable: Non-applicable
   14.5 Environmental hazard: No
   14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
   14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA): 2-butoxyethanol
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
   New York RTK - Substance list: 2-butoxyethanol
   Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
   CANADA-Domestic Substances List (DSL): 2-butoxyethanol
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: 2-butoxyethanol
   Rhode Island - Hazardous substances RTK: 2-butoxyethanol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
   circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
   product.

Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)
SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF604 - Piña Colada 604

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Water based fragrance for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318

2.2 Label elements:
   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Eye Dam. 1: H318 - Causes serious eye damage

   Precautionary statements:
   P280: Wear protective gloves/protection clothing/eye protection/face protection
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor

   Substances that contribute to the classification
   Surfactant Mixture

   Acute Toxicity Estimate (ATE mix):
   5.4 % (oral), 5.4 % (dermal), 5.4 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:
   Chemical description: Aqueous mixture composed of chemical products for cleaning products
   Components:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture</td>
<td>Eye Dam. 1: H318 - Danger</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By Inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace
### 8.2 Appropriate engineering controls:

A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 °F: Liquid
- Appearance: Transparent
- Color: Reddish
- Odor: Fruity
- Odour threshold: Non-applicable *

**Vapour:**
- Boiling point at atmospheric pressure: 215 °F
- Vapour pressure at 68 °F: 2338 Pa
- Vapour pressure at 122 °F: 92.41 (12.32 kPa)
- Evaporation rate at 68 °F: Non-applicable *

**Product description:**
- Density at 68 °F: 1025.7 kg/m³
- Relative density at 68 °F: 1.026
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: 9 - 10 at 100 %
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 °F)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 460 °F
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 °F: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

- CONTINUED ON NEXT PAGE -
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3); Benzyl acetate (3); Coumarin (3); E-caprolactam (4)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicity information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>35979.02 mg/kg (Calculation method)</td>
<td>5.4 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>32256.43 mg/kg (Calculation method)</td>
<td>5.4 %</td>
</tr>
<tr>
<td>Inhalation</td>
<td>331.74 mg/L (4 h) (Calculation method)</td>
<td>5.4 %</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
<td></td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
<td></td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>8</td>
<td>1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>Conclusion</td>
<td>Very High</td>
<td>Dry soil</td>
</tr>
<tr>
<td>Surface tension</td>
<td>2.729E-2 N/m (77 ºF)</td>
<td>Moist soil</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA) : 2-butoxyethanol
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
   New York RTK - Substance list: 2-butoxyethanol
   Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
   CANADA-Domestic Substances List (DSL): 2-butoxyethanol
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: 2-butoxyethanol
   Rhode Island - Hazardous substances RTK: 2-butoxyethanol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
product.

Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)
SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
 SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF606 - Bubble Gum 606

1.2 Recommended use of the chemical and restrictions on use:
Relevant uses: Chemical cleaning products
Water based fragrance for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

 SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Sens. 1: Sensitisation, skin, Category 1, H317

2.2 Label elements:
29 CFR 1910.1200:
Danger

Hazard statements:
Eye Dam. 1: H318 - Causes serious eye damage
Skin Sens. 1: H317 - May cause an allergic skin reaction

Precautionary statements:
P261: Avoid breathing dust/fume/gas/mist/vapours/spray
P272: Contaminated work clothing should not be allowed out of the workplace
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P333+P313: If skin irritation or rash occurs: Get medical advice/attention
P501: Dispose of contents and / or containers in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Substances that contribute to the classification
Surfactant Mixture; Orange, sweet, ext.

Acute Toxicity Estimate (ATE mix):
10.45 % (oral), 12.33 % (dermal), 12.33 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

 SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture</td>
<td>Eye Dam. 1: H318 - Danger 10 - &lt;15 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>Acute Tox. 4: H302 + H312 + H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning &lt;5 %</td>
</tr>
<tr>
<td>CAS: 119-36-8</td>
<td>Methyl salicylate</td>
<td>Acute Tox. 4: H302 - Warning &lt;5 %</td>
</tr>
<tr>
<td>CAS: 68647-72-3</td>
<td>Orange, sweet, ext.</td>
<td>Asp. Tox. 1: H304; Flam. Liq. 3: H226; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Danger &lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inertization agent. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.

B.- Technical recommendations for the prevention of fires and explosions
Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Avoid splashes and pulverizations. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
SECTION 7: HANDLING AND STORAGE (continued)

Minimum Temp.: -4 ºF
Maximum Temp.: 120 ºF

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>Ethyl acetate</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>CAS: 141-78-6</td>
<td>400 ppm</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL</td>
</tr>
<tr>
<td>Isopentyl acetate</td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>CAS: 123-92-2</td>
<td>100 ppm</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

Pictogram | PPE | Remarks
---|---|---
Mandatory hand protection | Protective gloves against minor risks | Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

Pictogram | PPE | Remarks
---|---|---
Mandatory face protection | Panoramic glasses against splash/projections. | Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)

E.- Bodily protection

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Pink
- Odor: Fruity
- Odour threshold: Non-applicable *

Volatile:
- Boiling point at atmospheric pressure: 219 ºF
- Vapour pressure at 68 ºF: 2325 Pa
- Vapour pressure at 122 ºF: 91.8 kPa (12.24 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

Product description:
- Density at 68 ºF: 1021.4 kg/m³
- Relative density at 68 ºF: 1.021
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: 8 - 9 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

**Flammability:**
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

**Explosive:**
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 **Other information:**
Surface tension at 68 ºF: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 **Reactivity:**
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 **Chemical stability:**
Chemically stable under the conditions of storage, handling and use.

10.3 **Possibility of hazardous reactions:**
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 **Conditions to avoid:**
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 **Incompatible materials:**

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Avoid direct impact</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 **Hazardous decomposition products:**
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects:**
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

B- Inhalation (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Methyl salicylate</td>
<td>LD50 oral 890 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 119-36-8</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>17141.71 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>21120.5 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>219.16 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>
## SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 1615 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>Methyl salicylate CAS: 119-36-8</td>
<td>LC50 Non-applicable</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 50 mg/L (24 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
</tbody>
</table>

### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
<tr>
<td>Methyl salicylate CAS: 119-36-8</td>
<td>BOD5 Non-applicable</td>
<td>Concentration Non-applicable</td>
</tr>
<tr>
<td></td>
<td>COD Non-applicable</td>
<td>Period Non-applicable</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.57</td>
<td>% Biodegradable Non-applicable</td>
</tr>
</tbody>
</table>

### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>BCF 3 Pow Log 0.83 Potential Low</td>
</tr>
<tr>
<td>Methyl salicylate CAS: 119-36-8</td>
<td>BCF 4 Pow Log 2.55 Potential Low</td>
</tr>
</tbody>
</table>

### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>Koc it Henry</td>
<td>1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion Very High</td>
<td>Dry soil Yes</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil No</td>
</tr>
<tr>
<td>Methyl salicylate CAS: 119-36-8</td>
<td>Koc 128 Henry</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Conclusion High</td>
<td>Dry soil Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Surface tension 4.004E-2 N/m (77 ºF)</td>
<td>Moist soil Non-applicable</td>
</tr>
</tbody>
</table>

### 12.5 Results of PBT and vPvB assessment:

Non-applicable

### 12.6 Other adverse effects:

Not described

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Disposal methods:

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See epigraph 6.2.

**Regulations related to waste management:**

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE
SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SECTION 15: REGULATORY INFORMATION (continued)

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA): 2-butoxyethanol; Methyl salicylate; Orange, sweet, ext.
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
New York RTK - Substance list: 2-butoxyethanol
Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol; Methyl salicylate
CANADA-Domestic Substances List (DSL): 2-butoxyethanol; Methyl salicylate; Orange, sweet, ext.
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Non-applicable
Minnesota - Hazardous substances ERTK: 2-butoxyethanol
Rhode Island - Hazardous substances RTK: 2-butoxyethanol; Methyl salicylate
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H318: Causes serious eye damage
H317: May cause an allergic skin reaction

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 3: H226 - Flammable liquid and vapour
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation
Skin Sens. 1: H317 - May cause an allergic skin reaction

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).
Abbreviations and acronyms:
### SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>CL50</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW</td>
<td>Octanol-water partition coefficient</td>
</tr>
<tr>
<td>Koc</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate: thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF607 - Cherry 607

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Water based fragrance for use in commercial car washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
   29 CFR 1910.1200:
   Danger
   Hazard statements:
   Eye Dam. 1: H318 - Causes serious eye damage
   Skin Irrit. 2: H315 - Causes skin irritation
   Precautionary statements:
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P302+P352: IF ON SKIN: Wash with plenty of soap and water
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor
   P332+P313: If skin irritation occurs: Get medical advice/attention
   Substances that contribute to the classification
   Surfactant Mixture
   Acute Toxicity Estimate (ATE mix):
   9.45 % (oral), 12.51 % (dermal), 12.51 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>10 - &lt;15 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td></td>
</tr>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td></td>
<td>Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td></td>
</tr>
<tr>
<td>CAS: 100-52-7</td>
<td>Benzaldehyde</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td></td>
<td>Acute Tox. 4: H302; Flam. Liq. 4: H227 - Warning</td>
<td></td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...).

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues; destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:
A. Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional / industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D. Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
<td></td>
</tr>
</tbody>
</table>

F.Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 ºF: Liquid
Appearance: Transparent
Color: Pink
Odor: Fruity
Odour threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: 225 ºF
Vapour pressure at 68 ºF: 2282 Pa
Vapour pressure at 122 ºF: 90.23 (12.03 kPa)
Evaporation rate at 68 ºF: Non-applicable *

Product description:
Density at 68 ºF: 1012.4 kg/m³
Relative density at 68 ºF: 1.012
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: 7 - 8 at 100 %
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 377 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 ºF: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

- CONTINUED ON NEXT PAGE -
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Benzaldehyde</td>
<td>LD50 oral 1100 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 100-52-7</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>9102.91 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>7994.78 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>82.96 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>Benzaldehyde</td>
<td>LC50 13.8 mg/L (96 h)</td>
<td>Carassius auratus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 100-52-7</td>
<td>EC50 50 mg/L (24 h)</td>
<td>Daphnia magna</td>
<td>Crustean</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BODS 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
<tr>
<td>Benzaldehyde</td>
<td>BODS 1.62 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 100-52-7</td>
<td>COD 1.98 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BODS/COD 0.82</td>
<td>% Biodegradable 66 %</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
<tr>
<td>Benzaldehyde</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 100-52-7</td>
<td>Pow Log 1.48</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>Moist soil Yes</td>
</tr>
<tr>
<td>Benzaldehyde</td>
<td>Koc Non-applicable</td>
<td>Henry Non-applicable</td>
</tr>
<tr>
<td>CAS: 100-52-7</td>
<td>Conclusion Non-applicable</td>
<td>Dry soil Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>Moist soil Non-applicable</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA) : 2-butoxyethanol ; Benzaldehyde
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol ; Benzaldehyde
   New York RTK - Substance list: 2-butoxyethanol ; Benzaldehyde
   Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol ; Benzaldehyde
   CANADA-Domestic Substances List (DSL): 2-butoxyethanol ; Benzaldehyde
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: 2-butoxyethanol ; Benzaldehyde
   Rhode Island - Hazardous substances RTK: 2-butoxyethanol ; Benzaldehyde
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)
SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liqu. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF608 - Tropical Fruit 608

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products
Water based fragrance for use in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:

29 CFR 1910.1200:
Danger

Hazard statements:
Eye Dam. 1: H318 - Causes serious eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Precautionary statements:
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P302+P352: IF ON SKIN: Wash with plenty of soap and water
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor
P332+P331: If skin irritation occurs: Get medical advice/attention

Substances that contribute to the classification
Surfactant Mixture

Acute Toxicity Estimate (ATE mix):
9.7 % (oral), 9.7 % (dermal), 9.7 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture&lt;br&gt;Eye Dam. 1: H318; Skin Irrit. 2: H315 - Danger</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol&lt;br&gt;Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warning</td>
<td>5 - &lt;10 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By Inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>8-hour TWA PEL 50 ppm, Ceiling Values - TWA PEL 240 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Yellow
- Odor: Fruity
- Odour threshold: Non-applicable *

**Vapour Pressure:**
- Boiling point at atmospheric pressure: 217 ºF
- Vapour pressure at 68 ºF: 2327 Pa
- Vapour pressure at 122 ºF: 91.97 (12.26 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1022.1 kg/m³
- Relative density at 68 ºF: 1.022
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: 8 - 9 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

**Flammability:**
- Flash Point: Non Flammable (>199.4 ºF)
- Flammability (solid, gas): Non-applicable *
- Autoignition temperature: 377 ºF
- Lower flammability limit: Non-applicable *
- Upper flammability limit: Non-applicable *

**Explosive:**
- Lower explosive limit: Non-applicable *
- Upper explosive limit: Non-applicable *

9.2 Other information:
- Surface tension at 68 ºF: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>28280 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>21200 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>220 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc</td>
<td>1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Henry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>Very High</td>
</tr>
<tr>
<td></td>
<td>Dry soil</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Surface tension</td>
<td>2.729E-2 N/m (77 ºF)</td>
</tr>
<tr>
<td></td>
<td>Moist soil</td>
<td>Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):

Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:
14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA) : 2-butoxyethanol
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol
   New York RTK - Substance list: 2-butoxyethanol
   Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol
   CANADA-Domestic Substances List (DSL): 2-butoxyethanol
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substancesERTK: 2-butoxyethanol
   Rhode Island - Hazardous substances RTK: 2-butoxyethanol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

   Specific provisions in terms of protecting people or the environment:
   It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
   circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
   product.

   Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)
SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet (“SDS”) is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).

END OF SAFETY DATA SHEET
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF700 - Acidic Cleaner 700

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Liquid Low pH Wall Cleaner for commercial vehicle washes.
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Corr. 1A: Skin corrosion, Category 1A, H314

2.2 Label elements:
   29 CFR 1910.1200:
   Danger
   Hazard statements:
   Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
   Precautionary statements:
   P260: Do not breathe dust/fume/gas/mist/vapours/spray
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor

   Substances that contribute to the classification
   Urea hydrochloride; Methanesulphonic acid; 2-butoxyethanol; Nitric acid

   Acute Toxicity Estimate (ATE mix):
   4.06 % (oral), 16.25 % (dermal), 23.75 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable
3.2 Mixtures:

**Chemical description:** Aqueous mixture composed of chemical products for cleaning products

**Components:**
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>CAS</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
</table>
| 506-89-8 | Urea hydrochloride  
Acute Tox. 4: H302; Skin Corr. 1B: H314 - Danger             | 10 - <15 %    |
| 75-75-2 | Methanesulphonic acid  
Acute Tox. 4: H302+H312; Eye Dam. 1: H318; Met. Corr. 1: H290; Skin Corr. 1B: H314; STOT SE 3: H335 - Danger | 5 - <10 %    |
| 111-76-2 | 2-butoxyethanol  
Acute Tox. 4: H302+H312+H332; Eye Irrit. 2: H319; Flam. Liq. 4: H227; Skin Irrit. 2: H315 - Warming  | <5 %          |
| 7697-37-2 | Nitric acid  
Ox. Liq. 2: H272; Skin Corr. 1A: H314 - Danger  | <5 %          |
| 68439-46-3 | Alcohol ethoxylate (C9-C11)  
Acute Tox. 4: H302; Eye Dam. 1: H318 - Danger  | <5 %          |

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

**By inhalation:**
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

**By skin contact:**
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

5.1 Suitable (and unsuitable) extinguishing media:
### SECTION 5: FIRE-FIGHTING MEASURES (continued)

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

#### 5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

#### 5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

#### 6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

#### 6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

#### 6.4 Reference to other sections:
See sections 8 and 13.

### SECTION 7: HANDLING AND STORAGE

#### 7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

- Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
- Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

- It is recommended to transfer at a slow speed to avoid the creation of electrostatic charges that could affect flammable products. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

- Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

- It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

#### 7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

- Minimum Temp.: -4 °F
- Maximum Temp.: 120 °F

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Date of compilation: 4/22/2019            Version: 1
SECTION 7: HANDLING AND STORAGE (continued)

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
<tr>
<td>Nitric acid</td>
<td>2 ppm</td>
</tr>
<tr>
<td>CAS: 7697-37-2</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment
As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection
The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

**Appearance:**
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Colorless
- Odor: Harsh
- Odour threshold: Non-applicable *

**Volatile:**
- Boiling point at atmospheric pressure: 215 ºF
- Vapour pressure at 68 ºF: 2391 Pa
- Vapour pressure at 122 ºF: 93.83 (12.51 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

**Product description:**
- Density at 68 ºF: 1079.3 kg/m³
- Relative density at 68 ºF: 1.079
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: <1 at 100 %
- Vapour density at 68 ºF: Non-applicable *
- Partition coefficient n-octanol/water 68 ºF: Non-applicable *
- Solubility in water at 68 ºF: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flammability:</strong></td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>Non Flammable (&gt;199.4 ºF)</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature:</td>
<td>460 ºF</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Other information:</strong></td>
<td></td>
</tr>
<tr>
<td>Surface tension at 68 ºF:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY**

10.1 **Reactivity:**
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 **Chemical stability:**
Chemically stable under the conditions of storage, handling and use.

10.3 **Possibility of hazardous reactions:**
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 **Conditions to avoid:**
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Not applicable</th>
<th>Precaution</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact with air</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase in temperature</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunlight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humidity</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10.5 **Incompatible materials:**

<table>
<thead>
<tr>
<th>Material</th>
<th>Not applicable</th>
<th>Precaution</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acids</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxidising materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combustible materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10.6 **Hazardous decomposition products:**
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION**

11.1 **Information on toxicological effects:**
The experimental information related to the toxicological properties of the product itself is not available.

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Methanesulphonic acid</td>
<td>LD50 oral 1157 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1000 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Urea hydrochloride</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol ethoxylate (C9-C11)</td>
<td>LD50 oral</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 68439-46-3</td>
<td>1400 mg/kg</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Nitric acid</td>
<td>LD50 oral</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>CAS: 7697-37-2</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LD50 dermal</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation</td>
<td>7 mg/L (1 h)</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>3056.88 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>6901.88 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>170.99 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanesulfonic acid</td>
<td>LC50</td>
<td>Oncorhynchus mykiss</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>73 mg/L (96 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>LC50</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>1490 mg/L (96 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitric acid</td>
<td>LC50</td>
<td>Gambussia afinis</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 7697-37-2</td>
<td>72 mg/L (96 h)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol ethoxylate (C9-C11)</td>
<td>LC50</td>
<td>QSAR</td>
<td></td>
</tr>
<tr>
<td>CAS: 68439-46-3</td>
<td>113 mg/L (96 h)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanesulfonic acid</td>
<td>BOD5</td>
<td>161 mg/L</td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-applicable</td>
<td>28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>100 %</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5</td>
<td>100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>0.71 g O2/g</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.2 g O2/g</td>
<td>14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD</td>
<td>96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanesulfonic acid</td>
<td>Koc</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>1</td>
<td>1.28E-3 Pa·m²/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion Very High</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Surface tension 3E+0 N/m (-459.67 °F)</td>
<td>Moist soil</td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>Koc</td>
<td>Henry</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>8</td>
<td>1.621E-1 Pa·m²/mol</td>
</tr>
<tr>
<td></td>
<td>Conclusion Very High</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil</td>
</tr>
</tbody>
</table>

- CONTINUED ON NEXT PAGE -
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN3264
14.2 UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Methanesulphonic acid)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN3264
14.2 UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Methanesulphonic acid)
14.3 Transport hazard class(es): 8
   Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:

- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

With regard to IATA/ICAO 2019:

- **14.1 UN number:** UN3264
- **14.2 UN proper shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Methanesulphonic acid)
- **14.3 Transport hazard class(es):** 8
  - Labels: 8
- **14.4 Packing group, if applicable:** II
- **14.5 Environmental hazard:** No

**14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises**

- Physico-Chemical properties: see section 9
- **14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Non-applicable

SECTION 15: REGULATORY INFORMATION

**15.1 Safety, health and environmental regulations specific for the product in question:**

- SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol ; Nitric acid
- California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
- The Toxic Substances Control Act (TSCA) : Urea hydrochloride ; Methanesulphonic acid ; 2-butoxyethanol ; Nitric acid ; Alcohol ethoxylate (C9-C11)
- Massachusetts RTK - Substance List: Nitric acid
- New Jersey Worker and Community Right-to-Know Act: Methanesulphonic acid ; 2-butoxyethanol ; Nitric acid
- New York RTK - Substance list: Methanesulphonic acid ; 2-butoxyethanol ; Nitric acid
- Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol ; Nitric acid
- CANADA-Domestic Substances List (DSL): Urea hydrochloride ; Methanesulphonic acid ; 2-butoxyethanol ; Nitric acid ; Alcohol ethoxylate (C9-C11)
- CANADA-Non-Domestic Substances List (NDSL): Non-applicable
- NTP (National Toxicology Program): Non-applicable
- Minnesota - Hazardous substances ERTK: 2-butoxyethanol ; Nitric acid
- Rhode Island - Hazardous substances RTK: 2-butoxyethanol ; Nitric acid
- Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Nitric acid (1000 pounds)

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

**Other legislation:**

- The Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

**Legislation related to safety data sheets:**

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

**Texts of the legislative phrases mentioned in section 2:**

- H314: Causes severe skin burns and eye damage
- H318: Causes serious eye damage

**Texts of the legislative phrases mentioned in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

- 29 CFR 1910.1200:
SECTION 16: OTHER INFORMATION (continued)

- Acute Tox. 4: H302 - Harmful if swallowed
- Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin
- Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
- Eye Dam. 1: H318 - Causes serious eye damage
- Eye Irrit. 2: H319 - Causes serious eye irritation
- Flam. Liq. 4: H227 - Combustible liquid
- Met. Corr. 1: H290 - May be corrosive to metals
- Ox. Liq. 2: H272 - May intensify fire, oxidiser
- Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
- Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
- Skin Irrit. 2: H315 - Causes skin irritation
- STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Other information:
The information relates to this specific material. It may not be valid for this material if used in combination with any other materials or in any process. CSI (Cleaning Systems, Incorporated) makes no warranty, express or implied, as to the accuracy or completeness or adequacy of information herein, except that such information is to the best of CSI's belief, accurate as of the date indicated. CSI assumes no responsibility for injury from the use of the product described herein.
# UF715 - Low pH – Acidic Extender

## Safety data sheet according to 29 CFR 1910.1200

### SECTION 1: IDENTIFICATION

1. **GHS Product identifier:** UF715 - Low pH – Acidic Extender

2. **Recommended use of the chemical and restrictions on use:**
   - **Relevant uses:** Chemical cleaning products
   - **Additive to increase acidity in commercial car washes solutions.**
   - **Uses advised against:** All uses not specified in this section or in section 7.3

3. **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**
   - **Name:** Cleaning Systems, Inc.
   - **Address:** 1997 American Blvd
   - **City:** De Pere
   - **State:** United States
   - **Phone:** 9203372175
   - **Fax:** 9203379410
   - **Email:** chemcompliance@cleaningsystemsinc.com
   - **Website:** http://cleaningsystemsinc.com

4. **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

### SECTION 2: HAZARD(S) IDENTIFICATION

2. **Classification of the substance or mixture:**
   - **29 CFR 1910.1200:**
     - **Eye Dam. 1:** Serious eye damage, Category 1, H318
     - **Met. Corr. 1:** Corrosive to metals, Category 1, H290
     - **Skin Corr. 1A:** Skin corrosion, Category 1A, H314

2. **Label elements:**
   - **29 CFR 1910.1200:**
     - **Danger**
     - **Hazard statements:**
       - Met. Corr. 1: H290 - May be corrosive to metals
       - Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
     - **Precautionary statements:**
       - **P234:** Keep only in original container
       - **P264:** Wash thoroughly after use
       - **P280:** Wear protective gloves/protective clothing/eye protection/face protection
       - **P301+P330+P331:** IF SWALLOWED: rinse mouth. Do NOT induce vomiting
       - **P303+P361+P353:**IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
       - **P304+P340:** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
       - **P305+P351+P338:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
       - **P310:** Immediately call a poison center/doctor

2. **Substances that contribute to the classification**
   - Phosphoric acid; Sulphuric acid; 2-butoxyethanol; Methanesulphonic acid

2. **Acute Toxicity Estimate (ATE mix):**
   - 0 % (oral), 8.07 % (dermal), 32.07 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2. **Additional labeling:**
   - Keep out of the reach of children

2. **Other hazards which do not result in classification:**
   - Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:
Chemical description: Aqueous mixture composed of chemical products for cleaning products
Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 7664-38-2</td>
<td>Phosphoric acid</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 7664-93-9</td>
<td>Sulphuric acid</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>Methanesulphonic acid</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Ethoxylated Alcohol</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By Inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

- CONTINUED ON NEXT PAGE -
SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use full jet water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
SECTION 7: HANDLING AND STORAGE (continued)

A.- Technical measures for storage

Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td></td>
<td>Ceiling Values - TWA</td>
</tr>
<tr>
<td></td>
<td>PEL</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td>CAS: 7664-38-2</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>50 ppm 240 mg/m³</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
<tr>
<td>Glycerol</td>
<td>1 mg/m³</td>
</tr>
<tr>
<td>CAS: 56-81-5</td>
<td></td>
</tr>
<tr>
<td>Sulphuric acid</td>
<td></td>
</tr>
<tr>
<td>CAS: 7664-93-9</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

E. Bodily Protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. Additional Emergency Measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency shower</td>
<td>ANSI Z358-1</td>
<td>Eyewash stations</td>
<td>DIN 12 899</td>
</tr>
</tbody>
</table>

Environmental Exposure Controls:
In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

- V.O.C. (Subpart C - Consumer): 4.02 % weight
- V.O.C. (Coatings) at 68 ºF: 47.29 kg/m³ (47.29 g/L)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
- Physical state at 68 ºF: Liquid
- Appearance: Transparent
- Color: Orange
- Odor: Not available
- Odour threshold: Non-applicable *

Volatility:
- Boiling point at atmospheric pressure: 229 ºF
- Vapour pressure at 68 ºF: 2285 Pa
- Vapour pressure at 122 ºF: 12043.1 Pa (12.04 kPa)
- Evaporation rate at 68 ºF: Non-applicable *

Product description:
- Density at 68 ºF: 1177.7 kg/m³
- Relative density at 68 ºF: 1.178
- Dynamic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 68 ºF: Non-applicable *
- Kinematic viscosity at 104 ºF: Non-applicable *
- Concentration: Non-applicable *
- pH: <1 at 100 %

*Not relevant due to the nature of the product, not providing information property of its hazards.
**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapour density at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Solubility in water at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Solubility properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Melting point/freezing point:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Oxidising properties:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Flammability:</strong></td>
<td></td>
</tr>
<tr>
<td>Flash Point:</td>
<td>Non Flammable (&gt;199.4 °F)</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature:</td>
<td>239 °F</td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>Explosive:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td><strong>9.2 Other information:</strong></td>
<td></td>
</tr>
<tr>
<td>Surface tension at 68 °F:</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Refraction index:</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY**

10.1 **Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 **Chemical stability:**

Chemically stable under the conditions of storage, handling and use.

10.3 **Possibility of hazardous reactions:**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 **Conditions to avoid:**

Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock and friction</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Contact with air</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Increase in temperature</td>
<td>Precaution</td>
</tr>
<tr>
<td>Sunlight</td>
<td>Precaution</td>
</tr>
<tr>
<td>Humidity</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 **Incompatible materials:**

<table>
<thead>
<tr>
<th>Incompatible materials:</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acids</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Water</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Oxidising materials</td>
<td>Precaution</td>
</tr>
<tr>
<td>Combustible materials</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Others</td>
<td>Avoid alkalies or strong bases</td>
</tr>
</tbody>
</table>

10.6 **Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION**

11.1 **Information on toxicological effects:**

The experimental information related to the toxicological properties of the product itself is not available.

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

**A- Ingestion (acute effect):**
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

**B- Inhalation (acute effect):**
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

**C- Contact with the skin and the eyes (acute effect):**
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

**D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):**
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  - IARC: 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**E- Sensitizing effects:**
- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**F- Specific target organ toxicity (STOT) - single exposure:**
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

**G- Specific target organ toxicity (STOT)-repeated exposure:**
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**H- Aspiration hazard:**
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

**Other information:**
Non-applicable

**Specific toxicology information on the substances:**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>LD50 oral 1250 mg/kg</td>
<td>Mouse</td>
</tr>
<tr>
<td>CAS: 7664-38-2</td>
<td>LD50 dermal 2740 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>
## SECTION 11: TOXICOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
<tr>
<td>Methanesulphonic acid</td>
<td>LD50 oral 1157 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>LD50 dermal 1000 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Ethoxylated Alcohol</td>
<td>LD50 oral 550 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>Sulphuric acid</td>
<td>LD50 oral 2140 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td>CAS: 7664-93-9</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

### Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>3933.64 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>14763.23 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>186.81 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

## SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available.

### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
<tr>
<td>Methanesulphonic acid</td>
<td>LC50 73 mg/L (96 h)</td>
<td>Oncorhynchus mykiss</td>
<td>Fish</td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>EC50 50 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 26 mg/L (96 h)</td>
<td>Selenastrum capricornutum</td>
<td>Algae</td>
</tr>
</tbody>
</table>

### 12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
<tr>
<td>Methanesulphonic acid</td>
<td>BOD5 Non-applicable</td>
<td>Concentration 161 mg/L</td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>COD Non-applicable</td>
<td>Period 28 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 100 %</td>
</tr>
</tbody>
</table>

### 12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

### 12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 3</td>
<td>Henry 1.621E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 °F)</td>
<td>Moist soil</td>
</tr>
<tr>
<td>Methanesulphonic acid</td>
<td>Koc 1</td>
<td>Henry 1.28E-3 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 75-75-2</td>
<td>Conclusion Very High</td>
<td>Dry soil</td>
</tr>
<tr>
<td></td>
<td>Surface tension 0E+0 N/m (-459.67 °F)</td>
<td>Moist soil</td>
</tr>
</tbody>
</table>
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: UN3264
14.2 UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid)
14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: UN3264
14.2 UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid)
14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

Transport of dangerous goods by air:

- CONTINUED ON NEXT PAGE -
UF715 - Low pH – Acidic Extender

Safety data sheet
according to 29 CFR 1910.1200

SECTION 14: TRANSPORT INFORMATION (continued)

With regard to IATA/ICAO 2019:

14.1 UN number: UN3264
14.2 UN proper shipping name: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid)
14.3 Transport hazard class(es): 8
Labels: 8
14.4 Packing group, if applicable: II
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Sulphuric acid ; 2-butoxyethanol
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA) : Phosphoric acid ; Sulphuric acid ; 2-butoxyethanol ; Methanesulphonic acid ; Ethoxylated Alcohol
Massachusetts RTK - Substance List: Phosphoric acid ; Sulphuric acid
New Jersey Worker and Community Right-to-Know Act: Phosphoric acid ; Sulphuric acid ; 2-butoxyethanol ; Methanesulphonic acid
New York RTK - Substance list: Phosphoric acid ; Sulphuric acid ; 2-butoxyethanol ; Methanesulphonic acid
Pennsylvania Worker and Community Right-to-Know Law: Phosphoric acid ; Sulphuric acid ; 2-butoxyethanol
CANADA-Domestic Substances List (DSL): Phosphoric acid ; Sulphuric acid ; 2-butoxyethanol ; Methanesulphonic acid ; Ethoxylated Alcohol
CANADA-Non-Domestic Substances List (NDSL): Non-applicable
NTP (National Toxicology Program): Sulphuric acid
Minnesota - Hazardous substances ERTK: Phosphoric acid ; Sulphuric acid ; 2-butoxyethanol
Rhode Island - Hazardous substances RTK: Phosphoric acid ; Sulphuric acid ; 2-butoxyethanol
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Phosphoric acid (5000 pounds) ; Sulphuric acid (1000 pounds)
Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.
Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H290: May be corrosive to metals
H318: Causes serious eye damage
H314: Causes severe skin burns and eye damage

Texts of the legislative phrases mentioned in section 3:
SECTION 16: OTHER INFORMATION (continued)

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:

Acute Tox. 4: H302 - Harmful if swallowed
Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Met. Corr. 1: H290 - May be corrosive to metals
Skin Corr. 1A: H314 - Causes severe skin burns and eye damage
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation
STOT SE 3: H335 - May cause respiratory irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Other information:
The information relates to this specific material. It may not be valid for this material if used in combination with any other materials or in any process. CSI (Cleaning Systems, Incorporated) makes no warranty, express or implied, as to the accuracy or completeness or adequacy of information herein, except that such information is to the best of CSI's belief, accurate as of the date indicated. CSI assumes no responsibility for injury from the use of the product described herein.
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF720 - Tank Fresh 720

1.2 Recommended use of the chemical and restrictions on use:

Relevant uses: Chemical cleaning products
Additive to keep dilutions tanks fresh in commercial car washes.
Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Cleaning Systems, Inc.
1997 American Blvd
54115 De Pere - United States
Phone.: 9203372175 - Fax: 9203379410
chemcompliance@cleaningsystemsinc.com
http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:

29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Eye Dam. 1: Serious eye damage, Category 1, H318
Skin Corr. 1B: Skin corrosion, Category 1B, H314

2.2 Label elements:

29 CFR 1910.1200:
Danger

Hazard statements:
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Precautionary statements:
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P264: Wash thoroughly after use
P280: Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310: Immediately call a poison center/doctor

Substances that contribute to the classification
Sodium 4(or 5)-methyl-1H-benzotriazolide

2.3 Other hazards which do not result in classification:
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
Non-applicable

3.2 Mixtures:

Chemical description: Aqueous mixture composed of chemical products for cleaning products

- CONTINUED ON NEXT PAGE -
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 64665-57-2</td>
<td>Sodium 4(or 5)-methyl-1H-benzotriazolide</td>
<td>15 - &lt;35 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By Inhalation:
This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spill product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F
B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

There are no occupational exposure limits for the substances contained in the product

8.2 **Appropriate engineering controls:**

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F.- Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

*Not relevant due to the nature of the product, not providing information property of its hazards.*

---
9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Liquid
Appearance: Transparent
Color: Greenish
Odor: Not available
Odour threshold: Non-applicable *

Volatile:
Boiling point at atmospheric pressure: 212 °F
Vapour pressure at 68 °F: 2350 Pa
Vapour pressure at 122 °F: 92.87 (12.38 kPa)
Evaporation rate at 68 °F: Non-applicable *

Product description:
Density at 68 °F: 1089.7 kg/m³
Relative density at 68 °F: 1.09
Dynamic viscosity at 68 °F: 1.47 cP
Kinematic viscosity at 68 °F: 1.35 cSt
Kinematic viscosity at 104 °F: Non-applicable *
Concentration: Non-applicable *
Ph: 9 - 11 at 100 %
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 °F)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 615 °F
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *
Refraction index: Non-applicable *
*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY
**SECTION 10: STABILITY AND REACTIVITY (continued)**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 **Chemical stability:**
Chemically stable under the conditions of storage, handling and use.

10.3 **Possibility of hazardous reactions:**
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 **Conditions to avoid:**
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 **Incompatible materials:**

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 **Hazardous decomposition products:**
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

**SECTION 11: TOXICOLOGICAL INFORMATION**

11.1 **Information on toxicological effects:**

The experimental information related to the toxicological properties of the product itself is not available.

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- **Ingestion (acute effect):**
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- **Inhalation (acute effect):**
- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract.

C- **Contact with the skin and the eyes (acute effect):**
- Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns. For more information on the secondary effects see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- **CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):**
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: 2,2',2''-nitritriethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- **Sensitizing effects:**

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:
- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:
Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium 4(or 5)-methyl-1H-benzotriazolide</td>
<td>LD50 oral 500 mg/kg (ATEi)</td>
<td></td>
</tr>
<tr>
<td>CAS: 64665-57-2</td>
<td>LD50 dermal Non-applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Acute toxicity</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>2857.13 mg/kg (Calculation method)</td>
<td>0 %</td>
</tr>
<tr>
<td>Dermal</td>
<td>&gt;5000 mg/kg (Calculation method)</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Inhalation</td>
<td>&gt;20 mg/L (4 h) (Calculation method)</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
Not available

12.2 Persistence and degradability:
Not available

12.3 Bioaccumulative potential:
Not available

12.4 Mobility in soil:
Not available

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):

- CONTINUED ON NEXT PAGE -
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in
direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-
dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
    Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
transport or conveyance either within or outside their premises
    Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
    Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
    Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No

14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
transport or conveyance either within or outside their premises
    Physico-Chemical properties: see section 9

14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
    Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

- CONTINUED ON NEXT PAGE -
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number:  Non-applicable
14.2 UN proper shipping name:  Non-applicable
14.3 Transport hazard class(es):  Non-applicable
   Labels:  Non-applicable
14.4 Packing group, if applicable:  Non-applicable
14.5 Environmental hazard:  No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties:  see section 9
14.7 Transport in bulk (according to
   Annex II of MARPOL 73/78 and
   the IBC Code):  Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313):  Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986):  Non-applicable
   The Toxic Substances Control Act (TSCA) : Sodium 4(or 5)-methyl-1H-benzotriazolide
   Massachusetts RTK - Substance List:  Non-applicable
   New Jersey Worker and Community Right-to-Know Act:  Non-applicable
   New York RTK - Substance list:  Non-applicable
   Pennsylvania Worker and Community Right-to-Know Law:  Non-applicable
   CANADA-Domestic Substances List (DSL): Sodium 4(or 5)-methyl-1H-benzotriazolide
   CANADA-Non-Domestic Substances List (NDSL):  Non-applicable
   NTP (National Toxicology Program):  Non-applicable
   Minnesota - Hazardous substances ERTK:  Non-applicable
   Rhode Island - Hazardous substances RTK:  Non-applicable
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302):  Non-applicable

 Specific provisions in terms of protecting people or the environment:
 It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
 circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
 product.

 Other legislation:
   The Toxic Substances Control Act (TSCA)
   Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the
individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302 - Harmful if swallowed
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**
- Occupational Safety & Health Administration (OSHA).

**Abbreviations and acronyms:**
- IMDG: International maritime dangerous goods code
- IATA: International Air Transport Association
- ICAO: International Civil Aviation Organisation
- COD: Chemical Oxygen Demand
- BOD5: 5-day biochemical oxygen demand
- BCF: Bioconcentration factor
- LD50: Lethal Dose 50
- CL50: Lethal Concentration 50
- EC50: Effective concentration 50
- Log-POW: Octanol-water partition coefficient
- Koc: Partition coefficient of organic carbon

**Other information:**
The information relates to this specific material. It may not be valid for this material if used in combination with any other materials or in any process. CSI (Cleaning Systems, Incorporated) makes no warranty, express or implied, as to the accuracy or completeness or adequacy of information herein, except that such information is to the best of CSI's belief, accurate as of the date indicated. CSI assumes no responsibility for injury from the use of the product described herein.
## SECTION 1: IDENTIFICATION

1.1 **GHS Product identifier:** UF730 - Pit Fresh 730

1.2 **Recommended use of the chemical and restrictions on use:**
   
   Relevant uses: Chemical cleaning products
   
   Additive to keep relcaim pits fresh in commercial car washes.
   
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 **Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**
   
   Cleaning Systems, Inc.
   
   1997 American Blvd
   
   54115 De Pere - United States
   
   Phone.: 9203372175 - Fax: 9203379410
   
   chemcompliance@cleaningsystemsinc.com
   
   http://cleaningsystemsinc.com

1.4 **Emergency phone number:** 1-800-424-9300 or 1-703-527-3887

## SECTION 2: HAZARD(S) IDENTIFICATION

2.1 **Classification of the substance or mixture:**
   
   29 CFR 1910.1200:
   
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   
   Eye Dam. 1: Serious eye damage, Category 1, H318
   
   Skin Corr. 1B: Skin corrosion, Category 1B, H314

2.2 **Label elements:**
   
   29 CFR 1910.1200:
   
   Danger

   **Hazard statements:**
   
   Skin Corr. 1B: H314 - Causes severe skin burns and eye damage

   **Precautionary statements:**
   
   P260: Do not breathe dust/fume/gas/mist/vapours/spray
   
   P264: Wash thoroughly after use
   
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   
   P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
   
   P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
   
   P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
   
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   
   P310: Immediately call a poison center/doctor

   **Substances that contribute to the classification**
   
   Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides; 2-butoxyethanol

   **Acute Toxicity Estimate (ATE mix):**
   
   0 % (oral), 0 % (dermal), 7.2 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 **Other hazards which do not result in classification:**
   
   Non-applicable

## SECTION 3: COMPOSITION/OPTIONAL INFORMATION ON INGREDIENTS

3.1 **Substances:**
   
   Non-applicable
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

3.2 Chemicals:
Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to §1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 68424-85-1</td>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</td>
<td>5 - &lt;10 %</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>2-butoxyethanol</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
Request medical assistance immediately, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Request immediate medical assistance, showing the SDS of this product. Do not induce vomiting, because its expulsion from the stomach can be hazardous to the mucus of the main digestive tract, and its inhalation, to the respiratory system. Rinse out the mouth and throat, as they may have been affected during ingestion. In the case of loss of consciousness do not administrate anything orally unless supervised by a doctor. Keep the person affected at rest.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
The characteristic of corrosivity per RCRA could apply to the unused product if it becomes a waste material. The EPA hazardous waste number D002 could apply. It is the responsibility of the waste generator to evaluate whether his wastes are hazardous by characteristics or listing.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container.
Maintain order and cleanliness where dangerous products are used.
B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.
C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F
B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

### 8.1 Control parameters:

**Substances whose occupational exposure limits have to be monitored in the workplace**

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8-hour TWA PEL</td>
</tr>
<tr>
<td>Ethanol</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>CAS: 64-17-5</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol</td>
<td>50 ppm</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td></td>
</tr>
</tbody>
</table>

### 8.2 Appropriate engineering controls:

**A.** Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

**B.** Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

**C.** Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

**D.** Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

**E.** Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work clothing</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td>Anti-slip work shoes</td>
<td></td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

**F.** Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

**Environmental exposure controls:**

[CONTINUED ON NEXT PAGE]
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:
Physical state at 68 °F: Liquid
Appearance: Transparent
Color: Blue
Odor: Fruity
Odour threshold: Non-applicable *

Vollatility:
Boiling point at atmospheric pressure: 213 °F
Vapour pressure at 68 °F: 2361 Pa
Vapour pressure at 122 °F: 93.18 (12.42 kPa)
Evaporation rate at 68 °F: Non-applicable *

Product description:
Density at 68 °F: 1021.3 kg/m³
Relative density at 68 °F: 1.021
Dynamic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 68 °F: Non-applicable *
Kinematic viscosity at 104 °F: Non-applicable *
Concentration: Non-applicable *
pH: 7 - 9 at 100 %
Vapour density at 68 °F: Non-applicable *
Partition coefficient n-octanol/water 68 °F: Non-applicable *
Solubility in water at 68 °F: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 °F)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 460 °F
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 °F: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Refraction index:</th>
<th>Non-applicable *</th>
</tr>
</thead>
</table>

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:
No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Precaution</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
   - Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):
   - Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
   - Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Above all, skin contact may occur as fabrics of all thicknesses can be destroyed, resulting in burns.
   - Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Brilliant blue FCF (C.I.4290/C.I.Acid Blue 9) (3); 2-butoxyethanol (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides CAS: 68424-85-1</td>
<td>LD50 oral 344 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1100 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation Non-applicable</td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LD50 oral 1414 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1060 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>4545.24 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Dermal</td>
<td>12555.87 mg/kg (Calculation method)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>732.84 mg/L (4 h) (Calculation method)</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides CAS: 68424-85-1</td>
<td>LC50 0.28 mg/L (96 h)</td>
<td>Pimephales promelas</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC50 Non-applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-butoxyethanol CAS: 111-76-2</td>
<td>LC50 1490 mg/L (96 h)</td>
<td>Lepomis macrochirus</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 1815 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 911 mg/L (72 h)</td>
<td>Pseudokirchneriella subcapitata</td>
<td>Algae</td>
</tr>
</tbody>
</table>

- CONTINUED ON NEXT PAGE -
SECTION 12: ECOLOGICAL INFORMATION (continued)

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BOD5 0.71 g O2/g</td>
<td>Concentration 100 mg/L</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>COD 2.2 g O2/g</td>
<td>Period 14 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD 0.32</td>
<td>% Biodegradable 96 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Pow Log 0.83</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-butoxyethanol</td>
<td>Koc 8</td>
<td>Henry 1.62E-1 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 111-76-2</td>
<td>Conclusion Very High</td>
<td>Dry soil No</td>
</tr>
<tr>
<td></td>
<td>Surface tension 2.729E-2 N/m (77 ºF)</td>
<td>Moist soil Yes</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:

With regard to IMDG 38-16:
## SECTION 14: TRANSPORT INFORMATION (continued)

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

### Transport of dangerous goods by air:

With regard to IATA/ICAO 2019:

<table>
<thead>
<tr>
<th>14.1 UN number:</th>
<th>Non-applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 UN proper shipping name:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.3 Transport hazard class(es):</td>
<td>Non-applicable</td>
</tr>
<tr>
<td></td>
<td>Labels: Non-applicable</td>
</tr>
<tr>
<td>14.4 Packing group, if applicable:</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>14.5 Environmental hazard:</td>
<td>No</td>
</tr>
<tr>
<td>14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises</td>
<td>Physico-Chemical properties: see section 9</td>
</tr>
<tr>
<td>14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</td>
<td>Non-applicable</td>
</tr>
</tbody>
</table>

## SECTION 15: REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations specific for the product in question:

| SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): 2-butoxyethanol |
| California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable |
| The Toxic Substances Control Act (TSCA): Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides; 2-butoxyethanol |
| Massachusetts RTK - Substance List: Non-applicable |
| New Jersey Worker and Community Right-to-Know Act: 2-butoxyethanol |
| New York RTK - Substance list: 2-butoxyethanol |
| Pennsylvania Worker and Community Right-to-Know Law: 2-butoxyethanol |
| CANADA-Domestic Substances List (DSL): Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides; 2-butoxyethanol |
| CANADA-Non-Domestic Substances List (NDSL): Non-applicable |
| NTP (National Toxicology Program): Non-applicable |
| Minnesota - Hazardous substances ERTK: 2-butoxyethanol |
| Rhode Island - Hazardous substances RTK: 2-butoxyethanol |
| Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable |

### Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

### Other legislation:
SECTION 15: REGULATORY INFORMATION (continued)

The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H314: Causes severe skin burns and eye damage
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).

END OF SAFETY DATA SHEET
SECTION 1: IDENTIFICATION

1.1 GHS Product identifier: UF750 - Laundry Detergent 750

1.2 Recommended use of the chemical and restrictions on use:
   Relevant uses: Chemical cleaning products
   Towel Detergent for use in commercial vehicle washes
   Uses advised against: All uses not specified in this section or in section 7.3

1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:
   Cleaning Systems, Inc.
   1997 American Blvd
   54115 De Pere - United States
   Phone.: 9203372175 - Fax: 9203379410
   chemcompliance@cleaningsystemsinc.com
   http://cleaningsystemsinc.com

1.4 Emergency phone number: 1-800-424-9300 or 1-703-527-3887

SECTION 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture:
   29 CFR 1910.1200:
   Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
   Eye Dam. 1: Serious eye damage, Category 1, H318
   Skin Irrit. 2: Skin irritation, Category 2, H315

2.2 Label elements:
   29 CFR 1910.1200:
   Danger

   Hazard statements:
   Eye Dam. 1: H318 - Causes serious eye damage
   Skin Irrit. 2: H315 - Causes skin irritation

   Precautionary statements:
   P264: Wash thoroughly after use
   P280: Wear protective gloves/protective clothing/eye protection/face protection
   P302+P352: IF ON SKIN: Wash with plenty of soap and water
   P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
   P310: Immediately call a poison center/doctor
   P332+P333: If skin irritation occurs: Get medical advice/attention

   Substances that contribute to the classification
   Surfactant Mixture; 2-aminoethanol

   Acute Toxicity Estimate (ATE mix):
   37.12 % (oral), 38.72 % (dermal), 38.72 % (inhalation) of the mixture consists of ingredient(s) of unknown toxicity

2.3 Other hazards which do not result in classification:
   Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:
   Non-applicable

3.2 Mixtures:
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Chemical description: Aqueous mixture composed of chemical products for cleaning products

Components:
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Chemical name/Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: Non-applicable</td>
<td>Surfactant Mixture: Eye Dam. 1: H318; Skin Irr. 2: H315 - Danger</td>
<td>15 - &lt;35 %</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>2-aminoethanol: Acute Tox. 4: H302+H312+H332; Flam. Liq. 4: H227; Skin Corr. 1B: H314 - Danger</td>
<td>&lt;5 %</td>
</tr>
<tr>
<td>CAS: Proprietary</td>
<td>Proprietary: Skin Irr. 2: H319 - Warning</td>
<td>&lt;5 %</td>
</tr>
</tbody>
</table>

To obtain more information on the hazards of the substances consult sections 8, 11, 12, 15 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:
The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:
This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:
Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:
Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:
Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:
Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of immediate medical attention and special treatment needed, if necessary:
Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:
Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2 Specific hazards arising from the chemical:
As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Special protective equipment and precautions for fire-fighters:
SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:
Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

6.2 Environmental precautions:
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:
It is recommended:
Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
Minimum Temp.: -4 °F
Maximum Temp.: 120 °F

B.- General conditions for storage
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.
## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the workplace

<table>
<thead>
<tr>
<th>Identification</th>
<th>Environmental limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td>8-hour TWA PEL: 3 ppm Ceiling Values - TWA PEL: 6 mg/m³</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td></td>
</tr>
</tbody>
</table>

### 8.2 Appropriate engineering controls:

A. - Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection, …) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B. - Respiratory protection

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C. - Specific protection for the hands

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory hand protection</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional/industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

D. - Ocular and facial protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory face protection</td>
<td>Panoramic glasses against splash/projections</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E. - Bodily protection

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

<table>
<thead>
<tr>
<th>Emergency measure</th>
<th>Standards</th>
<th>Emergency measure</th>
<th>Standards</th>
</tr>
</thead>
</table>

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:
For complete information see the product datasheet.

Appearance:
Physical state at 68 ºF: Liquid
Appearance: Opaque
Color: Green
Odor: Not available
Odour threshold: Non-applicable *

Volutility:
Boiling point at atmospheric pressure: 218 ºF
Vapour pressure at 68 ºF: 2291 Pa
Vapour pressure at 122 ºF: 90.56 (12.08 kPa)
Evaporation rate at 68 ºF: Non-applicable *

Product description:
Density at 68 ºF: 1041.7 kg/m³
Relative density at 68 ºF: 1.042
Dynamic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 68 ºF: Non-applicable *
Kinematic viscosity at 104 ºF: Non-applicable *
Concentration: Non-applicable *
pH: >11 at 100 %
Vapour density at 68 ºF: Non-applicable *
Partition coefficient n-octanol/water 68 ºF: Non-applicable *
Solubility in water at 68 ºF: Non-applicable *
Solubility properties: Non-applicable *
Decomposition temperature: Non-applicable *
Melting point/freezing point: Non-applicable *
Explosive properties: Non-applicable *
Oxidising properties: Non-applicable *

Flammability:
Flash Point: Non Flammable (>199.4 ºF)
Flammability (solid, gas): Non-applicable *
Autoignition temperature: 545 ºF
Lower flammability limit: Non-applicable *
Upper flammability limit: Non-applicable *

Explosive:
Lower explosive limit: Non-applicable *
Upper explosive limit: Non-applicable *

9.2 Other information:
Surface tension at 68 ºF: Non-applicable *
Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

- CONTINUED ON NEXT PAGE -
SECTION 10: STABILITY AND REACTIVITY (continued)

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:
Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:
Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:
Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Avoid direct impact</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Acids</th>
<th>Water</th>
<th>Oxidising materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Precaution</td>
<td>Not applicable</td>
<td>Avoid alkalies or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:
See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:
The experimental information related to the toxicological properties of the product itself is not available.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):
- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):
- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
  IARC: Diethanolamine (2B); Brilliant blue FCF (C.I.4290/C.I.Acid Blue 9) (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

E- Sensitizing effects:

- CONTINUED ON NEXT PAGE -
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td>LD50 oral 500 mg/kg</td>
<td>Rat</td>
</tr>
<tr>
<td></td>
<td>LD50 dermal 1025 mg/kg</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>LC50 inhalation 11 mg/L (4 h)</td>
<td>Rat</td>
</tr>
</tbody>
</table>

Acute Toxicity Estimate (ATE mix):

<table>
<thead>
<tr>
<th>ATE mix</th>
<th>Ingredient(s) of unknown toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral 6351.52 mg/kg (Calculation method)</td>
<td>37.12 %</td>
</tr>
<tr>
<td>Dermal 12689.29 mg/kg (Calculation method)</td>
<td>38.72 %</td>
</tr>
<tr>
<td>Inhalation 136.18 mg/L (4 h) (Calculation method)</td>
<td>38.72 %</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

<table>
<thead>
<tr>
<th>Identification</th>
<th>Acute toxicity</th>
<th>Species</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td>LC50 349 mg/L (96 h)</td>
<td>Cyprinus carpio</td>
<td>Fish</td>
</tr>
<tr>
<td></td>
<td>EC50 65 mg/L (48 h)</td>
<td>Daphnia magna</td>
<td>Crustacean</td>
</tr>
<tr>
<td></td>
<td>EC50 22 mg/L (72 h)</td>
<td>Scenedesmus subspicatus</td>
<td>Algae</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Degradability</th>
<th>Biodegradability</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td>BOD5 Non-applicable</td>
<td>Concentration 20 mg/L</td>
</tr>
<tr>
<td></td>
<td>COD Non-applicable</td>
<td>Period 21 days</td>
</tr>
<tr>
<td></td>
<td>BOD5/COD Non-applicable</td>
<td>% Biodegradable 90 %</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential:

<table>
<thead>
<tr>
<th>Identification</th>
<th>Bioaccumulation potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td>BCF 3</td>
</tr>
<tr>
<td></td>
<td>Pow Log -1.31</td>
</tr>
<tr>
<td></td>
<td>Potential Low</td>
</tr>
</tbody>
</table>

12.4 Mobility in soil:
SECTION 12: ECOLOGICAL INFORMATION (continued)

<table>
<thead>
<tr>
<th>Identification</th>
<th>Absorption/desorption</th>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-aminoethanol</td>
<td>Koc: 0.27</td>
<td>Henry: 3.7E-5 Pa·m³/mol</td>
</tr>
<tr>
<td>CAS: 141-43-5</td>
<td>Conclusion: Very High</td>
<td>Dry soil: No</td>
</tr>
<tr>
<td></td>
<td>Surface tension: 5.025E-2 N/m (77 ºF)</td>
<td>Moist soil: No</td>
</tr>
</tbody>
</table>

12.5 Results of PBT and vPvB assessment:
Non-applicable

12.6 Other adverse effects:
Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:
Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:
With regard to 49 CFR on the Transport of Dangerous Goods:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):
   Non-applicable

Transport of dangerous goods by sea:
With regard to IMDG 38-16:
SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and
   the IBC Code): Non-applicable

Transport of dangerous goods by air:
With regard to IATA/ICAO 2019:

14.1 UN number: Non-applicable
14.2 UN proper shipping name: Non-applicable
14.3 Transport hazard class(es): Non-applicable
   Labels: Non-applicable
14.4 Packing group, if applicable: Non-applicable
14.5 Environmental hazard: No
14.6 Special precautions which a user needs to be aware of, or needs to comply with, in connection with
   transport or conveyance either within or outside their premises
   Physico-Chemical properties: see section 9
14.7 Transport in bulk (according to Annex II of MARPOL 73/78 and
   the IBC Code): Non-applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:
   SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
   California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
   The Toxic Substances Control Act (TSCA): 2-aminoethanol
   Massachusetts RTK - Substance List: Non-applicable
   New Jersey Worker and Community Right-to-Know Act: 2-aminoethanol
   New York RTK - Substance list: 2-aminoethanol
   Pennsylvania Worker and Community Right-to-Know Law: 2-aminoethanol
   CANADA-Domestic Substances List (DSL): 2-aminoethanol
   CANADA-Non-Domestic Substances List (NDSL): Non-applicable
   NTP (National Toxicology Program): Non-applicable
   Minnesota - Hazardous substances ERTK: 2-aminoethanol
   Rhode Island - Hazardous substances RTK: 2-aminoethanol
   Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:
It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local
circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this
product.

Other legislation:
The Toxic Substances Control Act (TSCA)
Occupational Safety and Health Standards (1910 Subpart Z - Toxic and Hazardous Substances)
SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:
H315: Causes skin irritation
H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Acute Tox. 4: H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled
Eye Dam. 1: H318 - Causes serious eye damage
Eye Irrit. 2: H319 - Causes serious eye irritation
Flam. Liq. 4: H227 - Combustible liquid
Skin Corr. 1B: H314 - Causes severe skin burns and eye damage
Skin Irrit. 2: H315 - Causes skin irritation

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
SECTION 1. IDENTIFICATION

Product Identifier: HP-10
Other Means of Identification: Sealer Wax - Lemon Citrus Scent
Recommended Use: Sealant for touchless car wash applications.
Restrictions on Use: None known.
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver.2 (March 3, 2017)
Date of Preparation: May 26, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A; Skin sensitization - Category 1A; Aspiration hazard - Category 1

GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
Prevention:
P261 Avoid breathing dust, fume, gas, mist, vapours or spray.
P264 Wash hands and skin thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves.
P280 Wear eye protection/face protection.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
P331 Do NOT induce vomiting.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P321 Specific treatment (see supplemental first aid instruction on this label).

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local, regional, national and international regulations.

**Other Hazards**
None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>64742-46-7</td>
<td>20-30</td>
<td>Mineral seal oil</td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkylidimethyl, chlorides</td>
<td>61789-77-3</td>
<td>10-15</td>
<td>Di-alkyl Quaternary Ammonium Chloride</td>
</tr>
<tr>
<td>Amines, C14-18 and C16-18-unsatd. alkyl, ethoxylated</td>
<td>68155-39-5</td>
<td>5-10</td>
<td>Ethoxylated Fatty Acid Amine</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>5-8</td>
<td>Ethylene glycol butyl ether, Butyl cellosolve</td>
</tr>
<tr>
<td>d-Limonene</td>
<td>5989-27-5</td>
<td>1.5-2</td>
<td>(R)-p-mentha-1,8-diene</td>
</tr>
</tbody>
</table>

**Notes**
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

### SECTION 4. FIRST-AID MEASURES

**First-aid Measures**

**Inhalation**
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

**Skin Contact**
Avoid direct contact. Wear chemical protective clothing if necessary. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Completely decontaminate clothing, shoes, and leather goods before reuse or discard.

**Eye Contact**
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

**Ingestion**
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

**Most Important Symptoms and Effects, Acute and Delayed**
If on skin: repeated or prolonged exposure can irritate the skin. Symptoms include slight redness and swelling. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

**Immediate Medical Attention and Special Treatment**

**Target Organs**
Eyes, skin.

**Special Instructions**
Rinse affected area (skin, eyes) thoroughly with water.

**Medical Conditions Aggravated by Exposure**
None known.
SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Can ignite if strongly heated.

Special Protective Equipment and Precautions for Fire-fighters
Protect personnel from irritant liquid. Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike and recover contaminated water for appropriate disposal. Contact emergency services and manufacturer/supplier for advice.
Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Store in an area that is: clean, dry. Store in closed container. Keep from freezing. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td>20 ppm C</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Skin</td>
<td>Skin</td>
<td></td>
<td>Skin</td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>200 mg/m3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

Product Identifier: HP-10
SDS No.: Ver.2 (March 3, 2017)
Date of Preparation: May 26, 2015
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

**Individual Protection Measures**

- **Eye/Face Protection**
  Wear chemical safety goggles and face shield when contact is possible.

- **Skin Protection**
  Wear chemical protective clothing e.g. gloves, aprons, boots.

- **Respiratory Protection**
  Not normally required if product is used as directed.

---

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Basic Physical and Chemical Properties**

- **Appearance**
  Dark green liquid.

- **Odour**
  Citrus

- **Odour Threshold**
  Not available

- **pH**
  8 - 9

- **Melting Point/Freezing Point**
  Not available (melting); Not available (freezing)

- **Initial Boiling Point/Range**
  Not available

- **Flash Point**
  > 200 °F (93 °C) (closed cup)

- **Evaporation Rate**
  Not available

- **Flammability (solid, gas)**
  Not available

- **Upper/Lower Flammability or Explosive Limit**
  Not available (upper); Not available (lower)

- **Vapour Pressure**
  Not available

- **Vapour Density (air = 1)**
  Not available

- **Relative Density (water = 1)**
  0.92

- **Solubility**
  Soluble in water

- **Partition Coefficient, n-Octanol/Water (Log Kow)**
  Not available

- **Auto-ignition Temperature**
  Not available

- **Decomposition Temperature**
  Not available

- **Viscosity**
  Not available (kinematic)

**Other Information**

**Physical State**

Liquid

---

**SECTION 10. STABILITY AND REACTIVITY**

**Reactivity**

Not reactive.

**Chemical Stability**

Normally stable.

**Possibility of Hazardous Reactions**

None known.

**Conditions to Avoid**

None known.

**Incompatible Materials**

None known.

---

**Product Identifier:** HP-10

**SDS No.:** Ver.2 (March 3, 2017)

**Date of Preparation:** May 26, 2015
Hazardous Decomposition Products
Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; corrosive hydrogen chloride; hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Skin contact; eye contact.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat) (4-hour exposure)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>&gt; 5,000 mg/kg (rat)</td>
<td>&gt; 2,000 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyl(dimethyl), chlorides</td>
<td>200-2000 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d-Limonene</td>
<td>4400 mg/kg (rat)</td>
<td>&gt; 5000 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
No information was located.

Serious Eye Damage/Irritation
Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

  Inhalation
  No information was located.

  Ingestion
  May cause nausea, irritation of the mouth, throat and stomach.

Aspiration Hazard
May cause lung damage if aspirated based on physical properties (e.g. kinematic viscosity) and chemical family (hydrocarbon).

STOT (Specific Target Organ Toxicity) - Repeated Exposure
May cause blisters, rash. Symptoms may include dry, red, cracked skin (dermatitis). May cause irritation of the respiratory system. May cause respiratory tract injury, chemical pneumonia, dizziness, nausea.

Respiratory and/or Skin Sensitization
Sensitization may occur following exposure to the liquid or vapour. Contains: Citral, Alpha-pinene, Beta-pinene, 1, 4-Terpinolene, 1,8-Cineol.

Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d-Limonene</td>
<td>Group 3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive Toxicity

  Development of Offspring
  No indication from ingredients.

  Sexual Function and Fertility
  No indication from ingredients.

  Effects on or via Lactation
No indication from ingredients.

**Germ Cell Mutagenicity**
No information was located.

**Interactive Effects**
No information was located.

### SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

**Toxicity**

#### Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Fish</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L</td>
<td>1550 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkylidimethyl, chlorides</td>
<td>0.195 mg/L (96-hour)</td>
<td>0.3 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d-Limonene</td>
<td>0.619-0.796 mg/L (Pimephales promelas (fathead minnow); 96-hour; flow-through)</td>
<td>28.2 mg/L (Daphnia magna (water flea); 48-hour; flow-through)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>&gt; 100 mg/L (21-day; semi-static)</td>
<td></td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 21-day; semi-static)</td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkylidimethyl, chlorides</td>
<td></td>
<td>0.15 mg/L (Daphnia magna (water flea); 21-day)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Persistence and Degradability**

2-Butoxyethanol: Biodegradable as per OECD 301E tests for ready biodegradability. Degrades rapidly based on quantitative tests.

### SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal Methods**

Review federal, state/provincial, and local government requirements prior to disposal.

### SECTION 14. TRANSPORT INFORMATION


**Special Precautions for User**

Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable
SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada
elson Substances List (DSL) / Non-Domestic Substances List (NDSL)
Consult Transchem Pro Inc. regarding status of ingredients.

USA

Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.

Additional USA Regulatory Lists
SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).
New Jersey Right To Know: 2-butoxyethanol (CAS: 111-76-2).
California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 0  Flammability - 1  Instability - 0

SDS Prepared By  Technical Group
Date of Preparation  May 26, 2015

Revision Indicators
The following SDS content was changed on March 03, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification; Manufacturer.
SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density; pH.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Aspiration Hazard; Respiratory and/or Skin Sensitization; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Chronic Aquatic Toxicity; Acute Aquatic Toxicity.

Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: HP-11
Other Means of Identification: Neutral pH Friction Detergent - Unscented
Recommended Use: Foaming detergent for use in friction car wash equipment.
Restrictions on Use: None known.
Emergency Phone No.: CANUTEC (Canada), 613-996-6666, 24 Hours
INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
SDS No.: Ver. 2 (December 14, 2017)
Date of Preparation: April 27, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A

GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315 Causes skin irritation.
H319 Causes serious eye irritation.
Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Other Hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>68439-57-6</td>
<td>15-40</td>
<td>Sodium olefin Sulfonate</td>
</tr>
<tr>
<td>Fatty acids, C8-18 and C18-unsatd., compds. with diisopropanolamine</td>
<td>68855-69-6</td>
<td>1-5</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause moderate to severe irritation. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Does not burn.

Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

Large spills or leaks: dike and recover contaminated water for appropriate disposal.

Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information

Report spills to local health, safety and environmental authorities, as required.

**SECTION 7. HANDLING AND STORAGE**

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage

Separate from incompatible materials (see Section 10: Stability and Reactivity). Comply with all applicable health and safety regulations, fire and building codes. Store in closed container. Keep from freezing.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Appropriate Engineering Controls

General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection

Not normally required if product is used as directed.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Green liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>7 - 9</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not available (melting); Not available (freezing)</td>
</tr>
<tr>
<td>Initial Boiling Point/Range</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt; 200 °F (93 ºC) (closed cup)</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Will not burn</td>
</tr>
<tr>
<td>Upper/Lower Flammability or Explosive Limit</td>
<td>Not applicable (upper); Not applicable (lower)</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour Density (air = 1)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative Density (water = 1)</td>
<td>1.04</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Partition Coefficient, n-Octanol/Water (Log Kow)</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available (kinematic)</td>
</tr>
</tbody>
</table>

Other Information
SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
None known.

Incompatible Materials
None known.

Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Skin contact; eye contact.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>52-206 mg/L (rat)</td>
<td>2079-2340 mg/kg (rat)</td>
<td>6300-160000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Fatty acids, C8-18 and C18-unsatd., compds. with diisopropanolamine</td>
<td>2000 mg/kg (rat)</td>
<td>8000 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Prolonged exposure may cause eye damage.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
May cause nose and throat irritation, lung irritation.

Ingestion
May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
No information was located.

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity
Not on ACGIH, IARC, NTP and OSHA lists.

Reproductive Toxicity

Development of Offspring
No indication from ingredients.

Sexual Function and Fertility

Product Identifier: HP-11
SDS No.: Ver. 2 (December 14, 2017)
Date of Preparation: April 27, 2015
No indication from ingredients.
Effects on or via Lactation
No indication from ingredients.

Germ Cell Mutagenicity
No information was located.
Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>3.5-5 mg/L (96-hour)</td>
<td>4.53 (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION


Special Precautions
Not applicable

for User

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
Consult Transchem Pro Inc. regarding status of ingredients.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.

Additional USA Regulatory Lists
SARA Title III - Section 313: No listed substances are known to be present.
New Jersey Right To Know: No listed substances are known to be present.
California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 1 Flammability - 0 Instability - 0

SDS Prepared By
Technical Group

Date of Preparation
April 27, 2015

Revision Indicators
The following SDS content was changed on December 14, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Skin Contact; Eye Contact.
SECTION 5. FIRE-FIGHTING MEASURES; Special Protective Equipment and Precautions for Fire-fighters.
SECTION 6. ACCIDENTAL RELEASE MEASURES; Methods and Materials for Containment and Cleaning up.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density; pH.
SECTION 10. STABILITY AND REACTIVITY; Reactivity.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity.

Disclaimer
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SECTION 1. IDENTIFICATION

Product Identifier: HP-12
Other Means of Identification: High pH Friction Detergent - Lemon Scent
Recommended Use: Detergent cleanser.
Restrictions on Use: None known.
Emergency Phone No. INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No. Ver. 2 (March 7, 2017)
Date of Preparation: May 08, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 1C; Serious eye damage/eye irritation - Category 1; Skin sensitization - Category 1A

GHS Label Elements

Signal Word: Danger

Hazard Statement(s):
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.

Prevention:
P261 Avoid breathing dust, fume, gas, mist, vapours or spray.
P264 Wash hands and skin thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE/doctor.
P321 Specific treatment (see supplemental first aid instruction on this label).
Storage: P405 Store locked up.
Disposal: P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Other Hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>68439-57-6</td>
<td>15-20</td>
<td>Sodium Alpha Olefin Sulphonate</td>
</tr>
<tr>
<td>Tetrasodium EDTA</td>
<td>64-02-8</td>
<td>7-9</td>
<td>Tetrasodium salt, Ethylenediaminetetraacetic Acid</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>3-7</td>
<td>Caustic Soda</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>1-2</td>
<td>Butyl Cellosolve, Ethylene Glycol Monobutyl Ether</td>
</tr>
<tr>
<td>d-Limonene</td>
<td>5989-27-5</td>
<td>&lt;1</td>
<td>(R)-p-mentha-1,8-diene</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor.

Skin Contact
Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Wash contaminated articles separate from other clothing and avoid contact with wash water. Discard any footwear that cannot be decontaminated. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

Ingestion
Rinse mouth with water. Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. If conscious, drink large amounts of water and milk, followed by citrus juice or dilute vinegar. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed

If on skin: may burn the skin. Permanent scarring may result. If in eyes: may cause serious eye damage. May irritate or burn the eyes. Permanent damage including blindness may result.

Immediate Medical Attention and Special Treatment

Target Organs
Skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media
- Suitable Extinguishing Media
  Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.
- Unsuitable Extinguishing Media
  None known.

Specific Hazards Arising from the Chemical
- Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; corrosive sulfur oxides; hydrocarbons.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. Protect personnel from corrosive liquid, even when diluted.
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
Concentrated product: do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike and recover contaminated water for appropriate disposal. If material is neutralized with dilute acid, product may be flushed down sewers.
Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Store in an area that is: clean, dry, separate from incompatible materials (see Section 10: Stability and Reactivity). Comply with all applicable health and safety regulations, fire and building codes. Store in closed container. Keep from freezing.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>TWA</td>
<td>STEL TWA</td>
<td>Ceiling</td>
</tr>
<tr>
<td></td>
<td>2 mg/m3 C</td>
<td>2 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

Product Identifier: HP-12
SDS No.: Ver. 2 (March 7, 2017)
Date of Preparation: May 08, 2015
2-Butoxyethanol

<table>
<thead>
<tr>
<th>20 ppm C</th>
<th>50 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td>Skin</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls
Concentrated product: use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection
Wear chemical safety goggles and face shield when contact is possible.

Skin Protection
Wear chemical protective clothing e.g. gloves, aprons, boots. Suitable materials are: alkali-resistant materials.

Respiratory Protection
Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Fluorescent yellow liquid.</td>
</tr>
<tr>
<td>Odour</td>
<td>Citrus</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>&gt; 13.0</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not available (melting); Not available (freezing)</td>
</tr>
<tr>
<td>Initial Boiling Point/Range</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper/Lower Flammability or</td>
<td>Not applicable (upper); Not applicable (lower)</td>
</tr>
<tr>
<td>Explosive Limit</td>
<td></td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour Density (air = 1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative Density (water = 1)</td>
<td>1.15</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Partition Coefficient, n-Octanol/Water (Log Kow)</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available (kinematic)</td>
</tr>
</tbody>
</table>

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials.

Incompatible Materials
Strong acids (e.g. hydrochloric acid).
Hazardous Decomposition Products
Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; corrosive sulfur oxides; hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Skin contact; eye contact.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>&gt; 1-5 mg/L (rat) (4-hour exposure)</td>
<td>1780 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td></td>
<td>500 mg/kg (rabbit)</td>
<td>1350 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>52-206 mg/L (rat)</td>
<td>2079-2340 mg/kg (rat)</td>
<td>6300-160000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat) (4-hour exposure)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
<tr>
<td>d-Limonene</td>
<td></td>
<td>4400 mg/kg (rat)</td>
<td>&gt; 5000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows skin corrosion. May burn the skin. Permanent scarring may result. Effects may be delayed. Excessive skin exposure to vapors of >25 ppm in air may cause dizziness, nausea, and blood harm.

Serious Eye Damage/Irritation
May irritate or burn the eyes. Permanent damage including blindness may result.

STOT (Specific Target Organ Toxicity) - Single Exposure

- Inhalation
  - May cause nose and throat irritation, lung irritation.
- Ingestion
  - May cause severe irritation or burns to the mouth, throat and stomach.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
No indication from ingredients.

Respiratory and/or Skin Sensitization
Sensitization may occur following exposure to the liquid or vapour. Contains: Citral, Alpha-pinene, Beta-pinene, 1, 4-Terpinolene, 1,8-Cineol.

Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d-Limonene</td>
<td>Group 3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive Toxicity

- Development of Offspring
  - No indication from ingredients.
- Sexual Function and Fertility
  - No indication from ingredients.
SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>34-62 mg/L (Lepomis macrochirus (bluegill); 96-hour; static)</td>
<td>113 mg/L (Daphnia magna (water flea); 48-hour; static)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>45.4 mg/L (Onchorhynchus mykiss (rainbow trout); 96-hour; static)</td>
<td>100 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>3.5-5 mg/L (96-hour)</td>
<td>4.53 (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L (Lepomis macrochirus (bluegill); 96-hour)</td>
<td>1550 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d-Limonene</td>
<td>0.619-0.796 mg/L (Pimephales promelas (fathead minnow); 96-hour; flow-through)</td>
<td>28.2 mg/L (Daphnia magna (water flea); 48-hour; flow-through)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>&gt; 100 mg/L (21-day; semi-static)</td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 21-day; semi-static)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and Degradability

Versene 100 (EDTA): By using samples from a river, a ditch and a lake as inocula in the closed bottle test, a biodegradation between 60 and 83% was obtained after 49 days at pH 6.5, whereas between 53 and 72% were obtained after 28 days at pH 8.0.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Review federal, state/provincial, and local government requirements prior to disposal.
**SECTION 14. TRANSPORT INFORMATION**

<table>
<thead>
<tr>
<th>Regulation</th>
<th>UN No.</th>
<th>Proper Shipping Name</th>
<th>Transport Hazard Class(es)</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian TDG</td>
<td>3266</td>
<td>CORROSIVE LIQUID, Basic, Inorganic (Sodium hydroxide)</td>
<td>Class 8</td>
<td>III</td>
</tr>
<tr>
<td>US DOT</td>
<td>3266</td>
<td>CORROSIVE LIQUID, Basic, Inorganic (Sodium hydroxide)</td>
<td>Class 8</td>
<td>III</td>
</tr>
</tbody>
</table>

Special Precautions for User: Not applicable
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

**SECTION 15. REGULATORY INFORMATION**

Safety, Health and Environmental Regulations
Canada
- Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
- Consult Transchem Pro Inc. regarding status of ingredients.

USA
- Additional USA Regulatory Lists
  - SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).
  - New Jersey Right To Know: 2-butoxyethanol (CAS: 111-76-2); Sodium Hydroxide (CAS: 1310-73-2).
  - California Proposition 65: No listed substances are known to be present.
  - TSCA INVENTORY: All ingredients are commercially available and presumed to be listed by manufacturer.

**SECTION 16. OTHER INFORMATION**

<table>
<thead>
<tr>
<th>NFPA Rating</th>
<th>SDS Prepared By</th>
<th>Date of Preparation</th>
<th>Revision Indicators</th>
<th>Disclaimer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Health - 3, Flammability - 0, Instability - 0</td>
<td>Technical Group</td>
<td>May 08, 2015</td>
<td>The following SDS content was changed on March 07, 2017: SECTION 1. IDENTIFICATION; Other Means of Identification; Manufacturer. SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements. SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information. SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density. SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Respiratory and/or Skin Sensitization; Carcinogenicity. SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity. The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.</td>
</tr>
</tbody>
</table>
SECTION 1. IDENTIFICATION

Product Identifier: HP-15
Other Means of Identification: Drying Agent
Recommended Use: Used for removal of water and water spots in tunnel car wash applications.
Restrictions on Use: None known.
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (December 6, 2017)
Date of Preparation: May 26, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A; Aspiration hazard - Category 1

GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
P331 Do NOT induce vomiting.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.
Other Hazards None known.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>64742-46-7</td>
<td>10-30</td>
<td>Mineral seal oil</td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyl(dimethyl, chlorides</td>
<td>61789-77-3</td>
<td>7-13</td>
<td>Di-alkyl Quaternary Ammonium Chloride</td>
</tr>
<tr>
<td>Amines, C14-18 and C16-18-unsatd. alkyl, ethoxylated</td>
<td>68155-39-5</td>
<td>5-10</td>
<td>Ethoxylated Fatty Acid Amine</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>3-7</td>
<td>Ethylene glycol butyl ether, Butyl cellosolve</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Avoid direct contact. Wear chemical protective clothing if necessary. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: causes moderate to severe irritation. Repeated or prolonged exposure can irritate the skin. Symptoms include pain, redness, and swelling. If in eyes: causes moderate to severe irritation. Symptoms include pain, redness, and swelling.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Treat as combustible fluid.
Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. Dike and recover contaminated water for appropriate disposal.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

Large spills or leaks: dike spilled product to prevent runoff. Remove or recover liquid using pumps or vacuum equipment. Contact emergency services and manufacturer/supplier for advice.

Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage

Store in an area that is: clean, dry. Store in a closed container. Keep from freezing. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>Ceiling</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td>20 ppm C</td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin</td>
<td>Skin</td>
</tr>
<tr>
<td>Distillates (Petroleum),</td>
<td>5 mg/m3</td>
<td>10 mg/m3</td>
<td>5 mg/m3</td>
</tr>
<tr>
<td>Hydrotreated Middle</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection

Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance

Purple liquid.
Odour: Mild
Odour Threshold: Not available
pH: 7 - 9
Melting Point/Freezing Point: Not available (melting); Not available (freezing)
Initial Boiling Point/Range: Not available
Flash Point: > 200 °F (93 °C) (closed cup)
Evaporation Rate: Not available
Flammability (solid, gas): Not available
Upper/Lower Flammability or Explosive Limit: Not available (upper); Not available (lower)
Vapour Pressure: Not available
Vapour Density (air = 1): Not available
Relative Density (water = 1): 0.92
Solubility: Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow): Not available
Auto-ignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available (kinematic)
Other Information
Physical State: Liquid

SECTION 10. STABILITY AND REACTIVITY
Reactivity
Not reactive.
Chemical Stability
Normally stable.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
None known.
Incompatible Materials
None known.
Hazardous Decomposition Products
Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; corrosive hydrogen chloride; hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION
Likely Routes of Exposure
Skin contact; eye contact.
Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
<tr>
<td>(4-hour exposure)</td>
<td>(female rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>&gt; 10 mg/L</td>
<td>&gt; 5,000 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>(4-hour exposure)</td>
<td>(rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkylidimethyl, chlorides</td>
<td>200-2000 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SDS No.: Ver. 2 (December 6, 2017)
Date of Preparation: May 26, 2015
Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
When misted can cause nose, throat and respiratory tract irritation, coughing and headache.

Ingestion
May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
May cause lung damage if aspirated based on physical properties (e.g. kinematic viscosity) and chemical family (hydrocarbon).

STOT (Specific Target Organ Toxicity) - Repeated Exposure
May cause blisters, rash. Symptoms may include dry, red, cracked skin (dermatitis). May cause irritation of the respiratory system. May cause respiratory tract injury, chemical pneumonia, dizziness, nausea.

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive Toxicity

Development of Offspring
No indication from ingredients.

Sexual Function and Fertility
No indication from ingredients.

Effects on or via Lactation
No indication from ingredients.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L (Lepomis macrochirus (bluegill); 96-hour)</td>
<td>1550 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides</td>
<td>0.195 mg/L (96-hour)</td>
<td>0.3 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
</table>

Product Identifier: HP-15
SDS No.: Ver. 2 (December 6, 2017)
Date of Preparation: May 26, 2015
2-Butoxyethanol | > 100 mg/L (21-day; semi-static) | > 100 mg/L (Daphnia magna (water flea); 21-day; semi-static)
Quaternary ammonium compounds, dicoco alkyl dimethyl, chlorides | 0.15 mg/L (Daphnia magna (water flea); 21-day)

Persistence and Degradability
(2-Butoxyethanol) Biodegradable as per OECD 301E tests for ready biodegradability. Degrades rapidly based on quantitative tests.

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION
Special Precautions for User
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
Consult Transchem Pro Inc. regarding status of ingredients.
USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.
Additional USA Regulatory Lists
SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).
New Jersey Right To Know: 2-butoxyethanol (CAS: 111-76-2).
California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION
NFPA Rating
Health - 0  Flammability - 2  Instability - 0
SDS Prepared By
Technical Group
Date of Preparation
May 26, 2015
Revision Indicators
The following SDS content was changed on December 06, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Eye Contact.
SECTION 5. FIRE-FIGHTING MEASURES; Special Protective Equipment and Precautions for Fire-fighters.
SECTION 6. ACCIDENTAL RELEASE MEASURES; Methods and Materials for Containment and Cleaning up.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Odour; Appearance; Relative Density; pH.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Skin Corrosion/Irritation; Serious Eye Damage/Irritation; Ingestion; Aspiration Hazard; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.

Product Identifier: HP-15
SDS No.: Ver. 2 (December 6, 2017)
Date of Preparation: May 26, 2015
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: HP-35
Other Means of Identification: Rust Inhibitor

Recommended Use: Applied to underbody of vehicles to inhibit rust formation.

Restrictions on Use: None known.


Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours

SDS No.: Ver. 2 (July 28, 2017)
Date of Preparation: May 29, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2B

GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H320 Causes eye irritation.
H315 Causes skin irritation.

Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 IF eye irritation persists: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Other Hazards: None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Contains no hazardous ingredients.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Cyclohexene-1-octanoic acid, 5(or 6)-carboxy-4-hexyl-</td>
<td>53980-88-4</td>
<td>2-5</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Product Identifier: HP-35
SDS No.: Ver. 2 (July 28, 2017)
Date of Preparation: May 29, 2015
SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause mild irritation. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Very toxic carbon monoxide, carbon dioxide; hydrocarbons.

Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. Protect personnel from irritant liquid.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.
Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.

Small spills or leaks:
Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

Large spills or leaks: diluted product may be flushed down sewers. Dike and recover contaminated water for appropriate disposal.

Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
See Section 13 (Disposal Considerations) of this safety data sheet. Wear personal protective equipment to avoid direct contact with this chemical.

Conditions for Safe Storage
Store in an area that is: clean, dry. Store in a closed container. Keep from freezing. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters
Not available.

Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
- Eye/Face Protection
  Wear chemical safety goggles.
- Skin Protection
  Wear chemical protective clothing e.g. gloves, aprons, boots.
- Respiratory Protection
  Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties
- Appearance: Pink - red thin liquid.
- Odour: Mild
- Odour Threshold: Not available
- pH: 7.5 - 9.5
- Melting Point/Freezing Point: Not available (melting); Not available (freezing)
- Initial Boiling Point/Range: Not available
- Flash Point: > 200 ºF (93 ºC) (closed cup)
- Evaporation Rate: Not available
- Flammability (solid, gas): Will not burn.
- Upper/Lower Flammability or Explosive Limit: Not applicable (upper); Not applicable (lower)
- Vapour Pressure: Not available
- Vapour Density (air = 1): Not applicable
- Relative Density (water = 1): 1.01
- Solubility: Soluble in water
- Partition Coefficient, : Not available
SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
None known.

Incompatible Materials
None known.

Hazardous Decomposition Products
Very toxic carbon monoxide, carbon dioxide; hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Skin contact; eye contact.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Cyclohexene-1-octanoic acid, 5(or 6)-carboxy-4-hexyl-</td>
<td>&gt; 6,000 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>6110 mg/kg (rat)</td>
<td>&gt; 19870 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

LC50: No information was located.
LD50 (oral): No information was located.
LD50 (dermal): No information was located.

Skin Corrosion/Irritation
Human experience shows mild irritation.

SERIOUS EYE DAMAGE/IRRITATION
Human experience shows serious eye irritation. Prolonged exposure may cause eye damage.

STOT (Specific Target Organ Toxicity) - Single Exposure

<table>
<thead>
<tr>
<th>Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>May cause nose and throat irritation, lung irritation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms may include nausea, vomiting, stomach cramps and diarrhea.</td>
</tr>
</tbody>
</table>

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located.

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity

Product Identifier: HP-35
SDS No.: Ver. 2 (July 28, 2017)
Date of Preparation: May 29, 2015
Carcinogenicity
Not on ACGIH, IARC, NTP and OSHA lists.

Reproductive Toxicity
Development of Offspring
No indication from ingredients.
Sexual Function and Fertility
No indication from ingredients.
Effects on or via Lactation
No indication from ingredients.

Germ Cell Mutagenicity
No information was located.
Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION
All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity
Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Cyclohexene-1-octanoic acid, 5(or 6)-carboxy-4-hexyl-</td>
<td>15 mg/L (Pimephales promelas (fathead minnow); 96-hour)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>11800 mg/L (Pimephales promelas (fathead minnow); 96-hour)</td>
<td>1386 mg/L (Daphnia magna (water flea))</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triethanolamine</td>
<td></td>
<td>16 mg/L (Daphnia magna (water flea); 21-day)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

Special Precautions
for User
Not applicable

Transport in Bulk
According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
Consult Transchem Pro Inc. regarding status of ingredients.
USA

Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.

Additional USA Regulatory Lists
SARA Title III - Section 313: No listed substances are known to be present.
New Jersey Right To Know: Potassium hydroxide (CAS: 1310-58-3).
California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating

SDS Prepared By Technical Group

Date of Preparation May 29, 2015

Revision Indicators

The following SDS content was changed on July 28, 2017:
SECTION 1. IDENTIFICATION; Manufacturer.
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Skin Contact; Eye Contact.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Control Parameters.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density; pH.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.
SECTION 15. REGULATORY INFORMATION; Toxic Substances Control Act (TSCA) Section 8(b).

Disclaimer

The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.

Product Identifier: HP-35
SDS No.: Ver. 2 (July 28, 2017)
Date of Preparation: May 29, 2015
HP-60

SECTION 1. IDENTIFICATION

Product Identifier: HP-60
Other Means of Identification: Triple Shine Polish Cherry Scent - Red

Recommended Use: Protectant for use in automatic carwash foam arches.
Restrictions on Use: None known.
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
SDS No.: Ver. 2 (May 10, 2017)
Date of Preparation: May 27, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification:
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A

GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.

Prevention:
- P264 Wash hands thoroughly after handling.

Response:
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 If eye irritation persists: Get medical advice/attention.
- P302 + P352 IF ON SKIN: Wash with plenty of water.
- P362 + P364 Take off contaminated clothing and wash it before reuse.
- P332 + P313 If skin irritation occurs: Get medical advice/attention.

Other Hazards:
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lauryl Dimethyl Amine Oxide</td>
<td>1643-20-5</td>
<td>10-20</td>
<td>Lauramine Oxide</td>
</tr>
<tr>
<td>Cocoamidopropyl Betaine</td>
<td>61789-40-0</td>
<td>3-8</td>
<td>CAB</td>
</tr>
</tbody>
</table>

Notes: The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.
SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
This product presents no unusual hazards in a fire situation.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used
absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks: dike spilled product to prevent runoff. Remove or recover liquid using pumps or vacuum equipment. Contact emergency services and manufacturer/supplier for advice. Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information
Report spills to local health, safety and environmental authorities, as required.

### SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Store in an area that is: clean, dry. Store in closed container. Keep from freezing. Keep out of reach of children.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters
Not available.

Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash in work area, if contact or splash hazard exists.

Individual Protection Measures
Eye/Face Protection
Wear chemical safety goggles.

Skin Protection
Concentrated product: wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection
Not normally required when used under recommended conditions.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**
Dark red liquid.

**Odour**
Cherry

**Odour Threshold**
Not available

**pH**
7.0 - 9.0

**Melting Point/Freezing Point**
Not available (melting); Not available (freezing)

**Initial Boiling Point/Range**
Not available

**Flash Point**
Not available

**Evaporation Rate**
Not available

**Flammability (solid, gas)**
Will not burn.

**Upper/Lower Flammability or Explosive Limit**
Not applicable (upper); Not applicable (lower)

**Vapour Pressure**
Not available

**Vapour Density (air = 1)**
Not applicable

**Relative Density (water = 1)**
0.99

**Solubility**
Soluble in water

**Partition Coefficient, n-Octanol/Water (Log Kow)**
Not available

**Auto-ignition Temperature**
Not available

**Decomposition Temperature**
Not available

**Viscosity**
Not available (kinematic)
SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
None known.

Incompatible Materials
None known.

Hazardous Decomposition Products
Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; corrosive hydrogen chloride; hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Skin contact; eye contact.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocoamidopropyl Betaine</td>
<td></td>
<td>&gt; 5000 mg/kg (rat)</td>
<td>&gt; 5000 mg/kg (rat)</td>
</tr>
<tr>
<td>Lauryl Dimethyl Amine Oxide</td>
<td></td>
<td>2700 mg/kg (rat)</td>
<td></td>
</tr>
</tbody>
</table>

LC50: No information was located.
LD50 (oral): No information was located.
LD50 (dermal): No information was located.

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Prolonged exposure may cause eye damage.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
At high concentrations and/or may cause nose and throat irritation, lung irritation.

Ingestion
Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

If inhaled: may cause irritation of the respiratory system. May cause respiratory tract injury, dizziness, nausea, chemical pneumonia.
May cause defatting, dermatitis, blisters. Symptoms can include redness, rash, swelling and itching.

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity
Not on ACGIH, IARC, NTP and OSHA lists.

Reproductive Toxicity
Development of Offspring
No indication from ingredients.
Sexual Function and Fertility
No indication from ingredients.
Effects on or via Lactation
No indication from ingredients.
Germ Cell Mutagenicity
No information was located.
Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION
All components of this product are biodegradable by Regulation (EC) No 648/2004.

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION
Special Precautions for User
Not applicable
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
None known.
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
Consult Transchem Pro Inc. regarding status of ingredients.
USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.
Additional USA Regulatory Lists
SARA Title III - Section 313: No listed substances are known to be present.
New Jersey Right To Know: No listed substances are known to be present.
California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION
NFPA Rating
Health - 0  Flammability - 0  Instability - 0
SDS Prepared By
Technical Group
Date of Preparation
May 27, 2015
Revision Indicators
The following SDS content was changed on May 10, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification; Manufacturer.
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values.
Disclaimer
The information contained here in has been compiled from sources believed to be reliable and
is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: HP-61
Other Means of Identification: Triple Shine Polish Cherry Scent - Blue
Recommended Use: Protectant for use in automatic carwash foam arches.
Restrictions on Use: None known.
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (May 10, 2017)
Date of Preparation: May 27, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A

GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315 Causes skin irritation.
H319 Causes serious eye irritation.
Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
Other Hazards None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lauryl Dimethyl Amine Oxide</td>
<td>1643-20-5</td>
<td>10-20</td>
<td>Lauramine Oxide</td>
</tr>
<tr>
<td>Cocoaamidopropyl Betaine</td>
<td>61789-40-0</td>
<td>3-8</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes

Product Identifier: HP-61
SDS No.: Ver. 2 (May 10, 2017)
Date of Preparation: May 27, 2015
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: causes moderate to severe irritation. Repeated or prolonged exposure can irritate the skin. Symptoms include pain, redness, and swelling. If in eyes: causes moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Skin, eyes.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
This product presents no unusual hazards in a fire situation.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used
absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike spilled product to prevent runoff. Remove or recover liquid using pumps or vacuum
equipment.
Contact emergency services and manufacturer/supplier for advice. Review Section 13 (Disposal Considerations) of this
safety data sheet.
Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal
Considerations) of this safety data sheet.
Conditions for Safe Storage
Store in an area that is: clean, dry. Store in closed container. Keep from freezing. Keep out of reach of children.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters
Not available.
Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control
amount in the air. Provide eyewash in work area, if contact or splash hazard exists.
Individual Protection Measures
Eye/Face Protection
Wear chemical safety goggles.
Skin Protection
Concentrated product: wear chemical protective clothing e.g. gloves, aprons, boots.
Respiratory Protection
Not normally required when used under recommended conditions.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties
Appearance
Dark blue liquid.
Odour
Cherry
Odour Threshold
Not available
pH
7.0 - 9.0
Melting Point/Freezing Point
Not available (melting); Not available (freezing)
Initial Boiling Point/Range
Not available
Flash Point
Not available
Evaporation Rate
Not available
Flammability (solid, gas)
Will not burn.
Upper/Lower Flammability or
Explosive Limit
Not applicable (upper); Not applicable (lower)
Vapour Pressure
Not available
Vapour Density (air = 1)
Not applicable
Relative Density (water = 1)
0.99
Solubility
Soluble in water
Partition Coefficient,
n-Octanol/Water (Log Kow)
Not available
Auto-ignition Temperature
Not available
Decomposition Temperature
Not available
Viscosity
Not available (kinematic)
SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
None known.

Incompatible Materials
None known.

Hazardous Decomposition Products
Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; corrosive hydrogen chloride; hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Skin contact; eye contact.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
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<td>Cocoamidopropyl Betaine</td>
<td></td>
<td>&gt; 5000 mg/kg (rat)</td>
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<tr>
<td>Lauryl Dimethyl Amine Oxide</td>
<td></td>
<td>2700 mg/kg (rat)</td>
<td></td>
</tr>
</tbody>
</table>

LC50: No information was located.
LD50 (oral): No information was located.
LD50 (dermal): No information was located.

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Prolonged exposure may cause eye damage.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
At high concentrations and/or may cause nose and throat irritation, lung irritation.

Ingestion
Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

If inhaled: may cause irritation of the respiratory system. May cause respiratory tract injury, dizziness, nausea, chemical pneumonia.
May cause defatting, dermatitis, blisters. Symptoms can include redness, rash, swelling and itching.

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity
Not on ACGIH, IARC, NTP and OSHA lists.

Reproductive Toxicity

Product Identifier: HP-61
SDS No.: Ver. 2 (May 10, 2017)
Date of Preparation: May 27, 2015
Development of Offspring
No indication from ingredients.

Sexual Function and Fertility
No indication from ingredients.

Effects on or via Lactation
No indication from ingredients.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

### SECTION 12. ECOLOGICAL INFORMATION
All components of this product are biodegradable by Regulation (EC) No 648/2004.

### SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

### SECTION 14. TRANSPORT INFORMATION

Special Precautions
Not applicable for User
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

### SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
None known.

Canada
- Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
  Consult Transchem Pro Inc. regarding status of ingredients.

USA
- Toxic Substances Control Act (TSCA) Section 8(b)
  All ingredients are commercially available and presumed to be listed by manufacturer.
- Additional USA Regulatory Lists
  - SARA Title III - Section 313: No listed substances are known to be present.
  - New Jersey Right To Know: No listed substances are known to be present.
  - California Proposition 65: No listed substances are known to be present.

### SECTION 16. OTHER INFORMATION
<table>
<thead>
<tr>
<th>NFPA Rating</th>
<th>Health - 0</th>
<th>Flammability - 0</th>
<th>Instability - 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDS Prepared By</td>
<td>Technical Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date of Preparation</td>
<td>May 27, 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revision Indicators</td>
<td>The following SDS content was changed on May 10, 2017: SECTION 1. IDENTIFICATION; Other Means of Identification; Manufacturer. SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements. SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information. SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density. SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disclaimer</td>
<td>The information contained here in has been compiled from sources believed to be reliable and</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Product Identifier: HP-61
SDS No.: Ver. 2 (May 10, 2017)
Date of Preparation: May 27, 2015
is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier         HP-62
Other Means of Identification Triple Shine Polish Cherry Scent - Gold
Recommended Use            Protectant for use in automatic carwash foam arches.
Restrictions on Use        None known.
Emergency Phone No.          INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
                                              CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.                      Ver. 2 (May 10, 2017)
Date of Preparation         May 27, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A
GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315 Causes skin irritation.
H319 Causes serious eye irritation.
Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 IF eye irritation persists: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Other Hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lauryl Dimethyl Amine Oxide</td>
<td>1643-20-5</td>
<td>10-20</td>
<td>Lauramine Oxide</td>
</tr>
<tr>
<td>Cocoaamidopropyl Betaine</td>
<td>61789-40-0</td>
<td>3-8</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes

Product Identifier         HP-62
SDS No.:                      Ver. 2 (May 10, 2017)
Date of Preparation         May 27, 2015
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact

Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

Ingestion

Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed

If on skin: causes moderate to severe irritation. Repeated or prolonged exposure can irritate the skin. Symptoms include pain, redness, and swelling. If in eyes: causes moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs

Eyes, skin.

Special Instructions

Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure

None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Chemical

This product presents no unusual hazards in a fire situation.

Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used

Product Identifier: HP-62
SDS No.: Ver. 2 (May 10, 2017)
Date of Preparation: May 27, 2015
absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks: dike spilled product to prevent runoff. Remove or recover liquid using pumps or vacuum equipment. Contact emergency services and manufacturer/supplier for advice. Review Section 13 (Disposal Considerations) of this safety data sheet. Other Information Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE
Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.
Conditions for Safe Storage
Store in an area that is: clean, dry. Store in closed container. Keep from freezing. Keep out of reach of children.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Control Parameters
Not available.
Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash in work area, if contact or splash hazard exists.
Individual Protection Measures
Eye/Face Protection
Wear chemical safety goggles.
Skin Protection
Concentrated product: wear chemical protective clothing e.g. gloves, aprons, boots.
Respiratory Protection
Not normally required when used under recommended conditions.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES
Basic Physical and Chemical Properties
Appearance Dark yellow liquid.
Odour Cherry
Odour Threshold Not available
pH 7.0 - 9.0
Melting Point/Freezing Point Not available (melting); Not available (freezing)
Initial Boiling Point/Range Not available
Flash Point Not available
Evaporation Rate Not available
Flammability (solid, gas) Will not burn.
Upper/Lower Flammability or Explosive Limit Not applicable (upper); Not applicable (lower)
Vapour Pressure Not available
Vapour Density (air = 1) Not applicable
Relative Density (water = 1) 0.99
Solubility Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow) Not available
Auto-ignition Temperature Not available
Decomposition Temperature Not available
Viscosity Not available (kinematic)
SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

 Possibility of Hazardous Reactions
 None known.

 Conditions to Avoid
 None known.

 Incompatible Materials
 None known.

 Hazardous Decomposition Products
 Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; corrosive hydrogen chloride; hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Skin contact; eye contact.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocoamidopropyl Betaine</td>
<td></td>
<td>&gt; 5000 mg/kg (rat)</td>
<td>&gt; 5000 mg/kg (rat)</td>
</tr>
<tr>
<td>Lauryl Dimethyl Amine Oxide</td>
<td></td>
<td>2700 mg/kg (rat)</td>
<td></td>
</tr>
</tbody>
</table>

LC50: No information was located.
LD50 (oral): No information was located.
LD50 (dermal): No information was located.

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Prolonged exposure may cause eye damage.

STOT (Specific Target Organ Toxicity) - Single Exposure
Inhalation
At high concentrations and/or may cause nose and throat irritation, lung irritation.

Ingestion
Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
If inhaled: may cause irritation of the respiratory system. May cause respiratory tract injury, dizziness, nausea, chemical pneumonia.
May cause defatting, dermatitis, blisters. Symptoms can include redness, rash, swelling and itching.

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity
Not on ACGIH, IARC, NTP and OSHA lists.

Reproductive Toxicity
Development of Offspring
No indication from ingredients.
Sexual Function and Fertility
No indication from ingredients.
Effects on or via Lactation
No indication from ingredients.
Germ Cell Mutagenicity
No information was located.
Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION
All components of this product are biodegradable by Regulation (EC) No 648/2004.

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION
Special Precautions Not applicable
for User
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
None known.
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
Consult Transchem Pro Inc. regarding status of ingredients.
USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.
Additional USA Regulatory Lists
SARA Title III - Section 313: No listed substances are known to be present.
New Jersey Right To Know: No listed substances are known to be present.
California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION
NFPA Rating
Health - 0 Flammability - 0 Instability - 0
SDS Prepared By Technical Group
Date of Preparation May 27, 2015
Revision Indicators The following SDS content was changed on May 10, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification; Manufacturer.
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values.
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is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
HP-66

SECTION 1. IDENTIFICATION

Product Identifier: HP-66
Other Means of Identification: Triple Dry Polish - Citrus Scent - Blue
Recommended Use: Protectant for use in automatic carwash foam arches.
Restrictions on Use: None known.
Emergency Phone No.: CANUTEC (Canada), 613-996-6666, 24 Hours
INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
SDS No.: May 10, 2017
Date of Preparation: February 23, 2016

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A
GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315 Causes skin irritation.
H319 Causes serious eye irritation.
Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
Other Hazards:
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lauryl Dimethyl Amine Oxide</td>
<td>1643-20-5</td>
<td>5-10</td>
<td>N/A</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>1-5</td>
<td>Ethylene Glycol Monobutyl Ether, Butyl Cellosolve</td>
</tr>
</tbody>
</table>

Product Identifier: HP-66
SDS No.: May 10, 2017
Date of Preparation: February 23, 2016
Quaternary ammonium compounds, dicoco alkylidimethyl, chlorides 61789-77-3 1-5 Di-Alkyl Quaternary Ammonium Chloride
Distillates (Petroleum), Hydrotreated Middle 64742-46-7 1-5 Mineral Seal Oil

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Call a Poison Centre or doctor if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause moderate to severe irritation. Repeated or prolonged exposure can irritate the skin. If in eyes: may cause moderate to severe irritation. Symptoms include pain, redness, and swelling.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Does not burn.

Special Protective Equipment and Precautions for Fire-fighters
No special precautions are necessary. Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
Do not allow into any sewer, on the ground or into any waterway.
Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike spilled product to prevent runoff.
Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE
Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.
Conditions for Safe Storage
Separate from incompatible materials (see Section 10: Stability and Reactivity). Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td>20 ppm C</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated</td>
<td></td>
<td>5 mg/m3</td>
<td>10 mg/m3</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.
Individual Protection Measures
- Eye/Face Protection
  - Wear chemical safety goggles and face shield when contact is possible.
- Skin Protection
  - Wear chemical protective clothing e.g. gloves, aprons, boots.
  - Suitable materials are: latex rubber, butyl rubber.
- Respiratory Protection
  - Not normally required if good ventilation is maintained and exposure guidelines are not exceeded.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES
Basic Physical and Chemical Properties
- Appearance: Blue liquid.
- Odour: Cherry
- Odour Threshold: Not available
- pH: 7.5 - 8.3
- Melting Point/Freezing Point: Not available (melting); Not available (freezing)
- Initial Boiling Point/Range: Not available
- Flash Point: Not available
- Evaporation Rate: Not available
- Flammability (solid, gas): Will not burn.
- Upper/Lower Flammability or Explosive Limit: Not applicable (upper); Not applicable (lower)
Vapour Pressure: Not available
Vapour Density (air = 1): ~ 1
Relative Density (water = 1): 0.99
Solubility: Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow): Not available
Auto-ignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available (kinematic)
Other Information: Liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity
None known.
Chemical Stability
Normally stable.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
Incompatible materials.
Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid).
Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Skin contact; skin absorption; eye contact; ingestion; inhalation.
Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat) (4-hour exposure)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides</td>
<td>200-2000 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lauryl Dimethyl Amine Oxide</td>
<td>2700 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>&gt; 10 mg/L (rat) (4-hour exposure)</td>
<td>&gt; 5,000 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.
Serious Eye Damage/Irritation
Human experience shows serious eye irritation. May cause reddening and swelling of tissues around the eyes.

STOT (Specific Target Organ Toxicity) - Single Exposure
Inhalation
May cause nose and throat irritation, lung irritation, coughing, headaches.
Ingestion
Symptoms may include nausea, vomiting, stomach cramps and diarrhea.
Aspiration Hazard
No information was located.
STOT (Specific Target Organ Toxicity) - Repeated Exposure
Symptoms may include dry, red, cracked skin (dermatitis).
Respiratory and/or Skin Sensitization
No information was located.
Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive Toxicity
Development of Offspring
Not known to harm the unborn child.
Sexual Function and Fertility
Not known to cause effects on sexual function or fertility.
Effects on or via Lactation
Not known to cause effects on or via lactation.

Germ Cell Mutagenicity
No information was located.
Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION
All components of this product are biodegradable by Regulation (EC) No 648/2004.

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L (Lepomis macrochirus (bluegill); 96-hour)</td>
<td>1550 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyl(dimethyl), chlorides</td>
<td>0.195 mg/L (96-hour)</td>
<td>0.3 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>&gt; 100 mg/L (21-day; semi-static)</td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 21-day; semi-static)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyl(dimethyl), chlorides</td>
<td>0.15 mg/L (Daphnia magna (water flea); 21-day)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and Degradability
2-Butoxyethanol: Degrades rapidly based on quantitative tests. Biodegradable as per OECD 301E tests for ready biodegradability.

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.
SECTION 14. TRANSPORT INFORMATION

Special Precautions Not applicable
for User
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.
Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: 2-butoxyethanol (CAS: 111-76-2).
SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 1 Flammability - 0 Instability - 0

SDS Prepared By Technical Group
Date of Preparation February 23, 2016

Revision Indicators
The following SDS content was changed on May 10, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification; Manufacturer.
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.

Disclaimer
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HP-68

SECTION 1. IDENTIFICATION

Product Identifier: HP-68
Other Means of Identification: Triple Dry Polish - Citrus Scent - Red

Recommended Use: Protectant for use in automatic carwash foam arches.
Restrictions on Use: None known.
Emergency Phone No.: CANUTEC (Canada), 613-996-6666, 24 Hours
INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
SDS No.: Ver. 2 (May 12, 2017)
Date of Preparation: February 23, 2016

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A

GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315 Causes skin irritation.
H319 Causes serious eye irritation.
Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 IF eye irritation persists: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Other Hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lauryl Dimethyl Amine Oxide</td>
<td>1643-20-5</td>
<td>5-10</td>
<td>N/A</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>1-5</td>
<td>Ethylene Glycol Monobutyl Ether, Butyl Cellosolve</td>
</tr>
</tbody>
</table>

Product Identifier: HP-68
SDS No.: Ver. 2 (May 12, 2017)
Date of Preparation: February 23, 2016
Quaternary ammonium compounds, dicoco alkyl dimethyl, chlorides 61789-77-3 1-5 Di-Alkyl Quaternary Ammonium Chloride
Distillates (Petroleum), Hydrotreated Middle 64742-46-7 1-5 Mineral Seal Oil

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures
Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause moderate to severe irritation. Repeated or prolonged exposure can irritate the skin. If in eyes: may cause moderate to severe irritation. Symptoms include pain, redness, and swelling.

Immediate Medical Attention and Special Treatment
Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media
Suitable Extinguishing Media
Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Does not burn.

Special Protective Equipment and Precautions for Fire-fighters
No special precautions are necessary. Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.
Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

Large spills or leaks: dike spilled product to prevent runoff. Contact emergency services and manufacturer/supplier for advice. Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage

Separate from incompatible materials (see Section 10: Stability and Reactivity). Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td>20 ppm C Skin</td>
<td>50 ppm Skin</td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>5 mg/m3</td>
<td>10 mg/m3</td>
<td>5 mg/m3</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

- Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

- Wear chemical protective clothing e.g. gloves, aprons, boots.
- Suitable materials are: latex rubber, butyl rubber.

Respiratory Protection

- Not normally required if good ventilation is maintained and exposure guidelines are not exceeded.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Red liquid.</td>
</tr>
<tr>
<td>Odour</td>
<td>Citrus</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>7.5 - 8.3</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not available (melting); Not available (freezing)</td>
</tr>
<tr>
<td>Initial Boiling Point/Range</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Will not burn.</td>
</tr>
<tr>
<td>Upper/Lower Flammability or Explosive Limit</td>
<td>Not applicable (upper); Not applicable (lower)</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Product Identifier: HP-68
SDS No.: Ver. 2 (May 12, 2017)
Date of Preparation: February 23, 2016
SECTION 10. STABILITY AND REACTIVITY

Reactivity
None known.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials.

Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid).

Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Skin contact; skin absorption; eye contact; ingestion; inhalation.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
<tr>
<td>(4-hour exposure)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>alkyl(dimethyl) chlorides</td>
<td>200-2000 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lauryl Dimethyl Amine Oxide</td>
<td></td>
<td>2700 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>&gt; 10 mg/L (rat)</td>
<td>&gt; 5,000 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
</tr>
<tr>
<td></td>
<td>(4-hour exposure)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. May cause reddening and swelling of tissues around the eyes.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
Severe nose and throat irritation, lung irritation, coughing, headaches.

Ingestion
Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.
STOT (Specific Target Organ Toxicity) - Repeated Exposure
Prolonged or repeated exposure can cause drying, defatting, and dermatitis.
Respiratory and/or Skin Sensitization
No information was located.
Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive Toxicity
Development of Offspring
No indication from ingredients.
Sexual Function and Fertility
No indication from ingredients.
Effects on or via Lactation
No indication from ingredients.

Germ Cell Mutagenicity
No information was located.
Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION
All components of this product are biodegradable by Regulation (EC) No 648/2004.
Toxicity
Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish (96-hour)</th>
<th>EC50 Crustacea (48-hour)</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L (Lepomis macrochirus (bluegill); 96-hour)</td>
<td>1550 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkylidimethyl, chlorides</td>
<td>0.195 mg/L (96-hour)</td>
<td>0.3 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish (21-day; semi-static)</th>
<th>EC50 Fish (21-day)</th>
<th>NOEC Crustacea (21-day)</th>
<th>EC50 Crustacea (21-day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>&gt; 100 mg/L</td>
<td></td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 21-day; semi-static)</td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkylidimethyl, chlorides</td>
<td></td>
<td>0.15 mg/L (Daphnia magna (water flea); 21-day)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and Degradability
Alkyl Di-Alkyl Amine Oxide: Degrades rapidly based on quantitative tests.
Di-Alkyl Quaternary Ammonium Chloride: Biodegradable as per OECD 301 tests for ready biodegradability. Degrades rapidly based on quantitative tests.
Ethylene Glycol Monobutyl Ether: Degrades rapidly based on quantitative tests. Biodegradable as per OECD 301E tests for ready biodegradability.

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

Product Identifier: HP-68
SDS No.: Ver. 2 (May 12, 2017)
Date of Preparation: February 23, 2016
SECTION 14. TRANSPORT INFORMATION
Special Precautions Not applicable
for User
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.
USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are on the TSCA inventory or are exempt from TSCA inventory requirements under 40 CFR 720.
Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: 2-butoxyethanol (CAS: 111-76-2).
SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).

SECTION 16. OTHER INFORMATION
NFPA Rating Health - 1 Flammability - 0 Instability - 0
SDS Prepared By Technical Group
Date of Preparation February 23, 2016
Revision Indicators The following SDS content was changed on May 12, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification; Manufacturer.
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.
Disclaimer The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: HP-86
Other Means of Identification: Low pH Wheel Cleaner - Citrus Scent
Recommended Use: Concentrated detergent for cleaning tires and wheels.
Restrictions on Use: None known.
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (March 7, 2017)
Date of Preparation: May 26, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 1C; Serious eye damage/eye irritation - Category 1

GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
Prevention:
P260 Do not breathe dusts or mists.
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE/doctor.
P321 Specific treatment (see supplemental first aid instruction on this label).
Storage:
P405 Store locked up.
Disposal:
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Contains no hazardous ingredients. Substance:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2</td>
<td>3-7</td>
<td>N/A</td>
</tr>
<tr>
<td>Acid Salt</td>
<td>CBI*</td>
<td>3-5</td>
<td>N/A</td>
</tr>
<tr>
<td>Organic Salt</td>
<td>CBI*</td>
<td>2-4</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes

The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Completely decontaminate clothing, shoes, and leather goods before reuse or discard. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

Ingestion
Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: causes moderate to severe irritation. If in eyes: causes moderate to severe irritation. Symptoms include pain, redness, and swelling.

Immediate Medical Attention and Special Treatment

Target Organs

Eyes, skin.

Special Instructions

Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Use alcohol foam, carbon dioxide, water fog, halon, or dry chemical extinguishing media.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical

Product Identifier: HP-86
SDS No.: Ver. 2 (March 7, 2017)
Date of Preparation: May 26, 2015
Treat as combustible fluid. Directing a solid stream of water into a hot burning liquid can cause frothing and spread the fire.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike spilled product to prevent runoff.
Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
See advice on temperature in Conditions to Avoid in Section 10 (Stability and Reactivity) to determine suitable storage temperature.
Store in an area that is: cool, clean, dry. Store in closed container. Do not store in metal containers.
Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters
Not available.

Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
  Eye/Face Protection
  Wear chemical safety goggles and face shield when contact is possible.
  Skin Protection
  Wear chemical protective clothing e.g. gloves, aprons, boots.
  Suitable materials are: butyl rubber, natural rubber.
  Respiratory Protection
  Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Product Identifier: HP-86
SDS No.: Ver. 2 (March 7, 2017)
Date of Preparation: May 26, 2015
Appearance: Yellow liquid.
Odour: Citrus
Odour Threshold: Not available
pH: < 1.5
Melting Point/Freezing Point: Not available (melting); Not available (freezing)
Initial Boiling Point/Range: Not available
Flash Point: Not applicable
Evaporation Rate: Not available
Flammability (solid, gas): Not available
Upper/Lower Flammability or Explosive Limit: Not applicable (upper); Not applicable (lower)
Vapour Pressure: Not applicable
Vapour Density (air = 1): Not available
Relative Density (water = 1): 1.07
Solubility: Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow): Not available
Auto-ignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available (kinematic)

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.
Chemical Stability
Unstable under certain conditions - see Conditions to Avoid.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
Contact with most metals above this temperature may release hydrogen. Temperatures above 140.0 °F (60.0 °C)
Incompatible Materials
Oxidizing agents (e.g. peroxides), nitrates, chlorates, hypochlorites.
Hazardous Decomposition Products
Thermal decomposition: very toxic carbon monoxide, carbon dioxide.
Upon contact with metals: flammable hydrogen gas.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.
Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td></td>
<td>5400 mg/kg (mouse)</td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.
Serious Eye Damage/Irritation
Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

<table>
<thead>
<tr>
<th>Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>May cause nose and throat irritation, lung irritation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product may be harmful or fatal if swallowed.</td>
</tr>
</tbody>
</table>

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause irritation of the respiratory system. May cause respiratory tract injury. May cause eye irritation problems.

Respiratory and/or Skin Sensitization

No information was located.

Carcinogenicity

Contains D'Limonene.

No components listed by ACGIH and NTP. IARC lists D'Limonene in Group 3, inadequate in humans, and inadequate or limited in animals.

Reproductive Toxicity

<table>
<thead>
<tr>
<th>Development of Offspring</th>
</tr>
</thead>
<tbody>
<tr>
<td>No indication from ingredients.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sexual Function and Fertility</th>
</tr>
</thead>
<tbody>
<tr>
<td>No indication from ingredients.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effects on or via Lactation</th>
</tr>
</thead>
<tbody>
<tr>
<td>No indication from ingredients.</td>
</tr>
</tbody>
</table>

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish (96-hour)</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>440-760 mg/L</td>
<td>1525 mg/L</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Regulation</th>
<th>UN No.</th>
<th>Proper Shipping Name</th>
<th>Transport Hazard Class(es)</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian TDG</td>
<td>3264</td>
<td>CORROSIVE LIQUID, Acidic, Inorganic (Phosphoric Acid)</td>
<td>Class 8</td>
<td>III</td>
</tr>
</tbody>
</table>

Product Identifier: HP-86
SDS No.: Ver. 2 (March 7, 2017)
Date of Preparation: May 26, 2015
SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada
- Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
  - Consult Transchem Pro Inc. regarding status of ingredients.

USA
- Toxic Substances Control Act (TSCA) Section 8(b)
  - All ingredients are commercially available and presumed to be listed by manufacturer.
- Additional USA Regulatory Lists
  - SARA Title III - Section 313: No listed substances are known to be present.
  - New Jersey Right To Know: Phosphoric acid (CAS: 7664-38-2).
  - California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating
- Health - 2
- Flammability - 1
- Instability - 0

SDS Prepared By
- Technical Group

Date of Preparation
- May 26, 2015

Revision Indicators
- The following SDS content was changed on March 07, 2017:
  - SECTION 1. IDENTIFICATION; Other Means of Identification; Recommended Use; Manufacturer.
  - SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
  - SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
  - SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density.
  - SECTION 11. TOXICOLOGICAL INFORMATION; Carcinogenicity.

Disclaimer
- The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates.
- Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: HP-94
Other Means of Identification: MAX Power High pH Presoak
Recommended Use: Used as presoak in touchless carwash applications.
Restrictions on Use: None known.
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 3 (March 26, 2018)
Date of Preparation: September 05, 2017

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 1

GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H315 Causes skin irritation.
H318 Causes serious eye damage.
Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE/doctor.

Other Hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surfactant Blend</td>
<td>Proprietary</td>
<td>8-12</td>
<td>N/A</td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>6834-92-0</td>
<td>2-6</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Product Identifier: HP-94
SDS No.: Ver. 3 (March 26, 2018)
Date of Preparation: September 05, 2017
Tetrasodium EDTA 64-02-8 1-3 Ethylenediaminetetraacetic acid
Sodium hydroxide 1310-73-2 1-3 Caustic Soda
2-Butoxyethanol 111-76-2 1-3 Butyl Cellosolve, Ethylene glycol monobutyl ether

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Completely decontaminate clothing, shoes, and leather goods before reuse or discard. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Immediately call a Poison Centre or doctor.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink one glass of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause moderate to severe irritation. Repeated or prolonged exposure can irritate the skin. Symptoms include pain, redness, and swelling. If in eyes: may cause moderate to severe irritation. Symptoms include pain, redness, and swelling.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Hazardous combustion products: oxides of carbon and nitrogen.

Special Protective Equipment and Precautions for Fire-fighters
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.
Environmental Precautions
It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks: dike spilled product to prevent runoff. Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE
Precautions for Safe Handling
Prevent skin contact. Do not get in eyes. Wear personal protective equipment to avoid direct contact with this chemical.

Conditions for Safe Storage
Store in a closed container. Store in an area that is: cool, dry, separate from incompatible materials (see Section 10: Stability and Reactivity).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td></td>
<td></td>
<td>2 mg/m3 C</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>20 ppm C</td>
<td>Skin</td>
<td>50 ppm</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls
General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
- Eye/Face Protection
  Wear chemical safety goggles and face shield when contact is possible.
- Skin Protection
  Wear chemical protective clothing e.g. gloves, aprons, boots. Neoprene rubber, polyvinyl chloride, latex rubber.
- Respiratory Protection
  Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties
- Appearance: Clear green liquid.
- Odour: Mild
- Odour Threshold: Not available
- pH: 13.0 - 13.6
- Melting Point/Freezing Point: Not available (melting); Not available (freezing)
- Initial Boiling Point/Range: Not available
- Flash Point: Not available
- Evaporation Rate: Not available
- Flammability (solid, gas): Not available
- Upper/Lower Flammability or Explosive Limit: Not applicable (upper); Not applicable (lower)
- Vapour Pressure: Not applicable

Product Identifier: HP-94
SDS No.: Ver. 3 (March 26, 2018)
Date of Preparation: September 05, 2017
Vapour Density (air = 1) ~ 1
Relative Density (water = 1) 1.06
Solubility Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow) Not available
Auto-ignition Temperature Not available
Decomposition Temperature Not available
Viscosity Not available (kinematic)
Other Information Liquid
Physical State

SECTION 10. STABILITY AND REACTIVITY
Reactivity
Not reactive.
Chemical Stability
Normally stable.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
None known.
Incompatible materials.
Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid).
Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION
Likely Routes of Exposure
Inhalation; skin contact; eye contact.
Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>&gt; 1-5 mg/L (rat) (4-hour exposure)</td>
<td>1780 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td></td>
<td>500 mg/kg (rabbit)</td>
<td>1350 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td></td>
<td>1153 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat) (4-hour exposure)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation. Symptoms include pain, redness, and swelling.

Serious Eye Damage/Irritation
Human experience shows serious eye damage. May irritate or burn the eyes. Permanent damage including blindness may result.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
Can cause nose, throat and respiratory tract irritation, coughing and headache.

Ingestion
May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.
STOT (Specific Target Organ Toxicity) - Repeated Exposure
Symptoms may include dry, red, cracked skin (dermatitis).
Respiratory and/or Skin Sensitization
No information was located.
Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive Toxicity
- Development of Offspring
  - No indication from ingredients.
- Sexual Function and Fertility
  - No indication from ingredients.
- Effects on or via Lactation
  - No indication from ingredients.

Germ Cell Mutagenicity
- No information was located.

Interactive Effects
- No information was located.

SECTION 12. ECOLOGICAL INFORMATION
All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>34-62 mg/L (Lepomis macrochirus (bluegill); 96-hour; static)</td>
<td>113 mg/L (Daphnia magna (water flea); 48-hour; static)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>45.4 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour; static)</td>
<td>100 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>210 mg/L (96-hour)</td>
<td>216 mg/L (96-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L (Lepomis macrochirus (bluegill); 96-hour)</td>
<td>1550 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>&gt; 100 mg/L (21-day; semi-static)</td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 21-day; semi-static)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and Degradability
(Tetrasodium EDTA) By using samples from a river, a ditch and a lake as inocula in the closed bottle test, a biodegradation between 60 and 83% was obtained after 49 days at pH 6.5, whereas between 53 and 72% were obtained after 28 days at pH 8.0.
SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION
Special Precautions for User
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.
USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are listed on the TSCA Inventory.
Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: Sodium Hydroxide (CAS: 1310-73-2); 2-butoxyethanol (CAS: 111-76-2).
SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).

SECTION 16. OTHER INFORMATION
NFPA Rating
Health - 2
SDS Prepared By
Technical Group
Date of Preparation
September 05, 2017
Revision Indicators
The following SDS content was changed on March 26, 2018:
SECTION 1. IDENTIFICATION; Other Means of Identification.
Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: HP-107
Other Means of Identification: High-Gloss Tire Dressing - Solvent-based
Recommended Use: Protection compound for tires.
Restrictions on Use: None known.
Emergency Phone No. INFOTRAC (U.S.), 1-800-535-5053, 24 Hours CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (August 1, 2017)
Date of Preparation: August 20, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2B; Aspiration hazard - Category 1

GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H304 May be fatal if swallowed and enters airways.
H320 Causes eye irritation.
H315 Causes skin irritation.
Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
P331 Do NOT induce vomiting.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P332 + P337 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product Identifier: HP-107
SDS No.: Ver. 2 (August 1, 2017)
Date of Preparation: August 20, 2015
Mixture:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Distillates</td>
<td>64742-46-7</td>
<td>65-75</td>
<td>Mineral Seal Oil</td>
</tr>
</tbody>
</table>

Notes

The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Get medical advice/attention if you feel unwell or are concerned.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Immediately call a Poison Centre or doctor. Aspiration of swallowed liquid product may be fatal.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause mild irritation. If in eyes: may cause moderate to severe irritation.

Immediate Medical Attention and Special Treatment

Target Organs
Skin, eyes.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Use alcohol foam, carbon dioxide, water fog, halon, or dry chemical extinguishing media.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Treat as combustible fluid. When heated, containers may burst.

Special Protective Equipment and Precautions for Fire-fighters
Avoid flow of contaminated fire waters to storm sewers. Keep un-ignited containers cool with water.
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Remove ignition sources. Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks: dike spilled product to prevent runoff. Remove or recover liquid using pumps or vacuum equipment. Contact emergency services and manufacturer/supplier for advice.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Do not swallow. Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Store in closed container. Store in an area that is: cool, dry, separate from incompatible materials (see Section 10: Stability and Reactivity).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>Petroleum Distillates</td>
<td>5 mg/m³</td>
<td>10 mg/m³</td>
<td>5 mg/m³</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls
Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

- Eye/Face Protection
  - Wear chemical safety goggles.
- Skin Protection
  - Wear chemical protective clothing e.g. gloves, aprons, boots.
- Respiratory Protection
  - Use face mask or approved respirator appropriate for concentration of mists.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

- Appearance: Clear - colourless liquid.
- Odour: Mild
- Odour Threshold: Not available
- pH: Not applicable
- Melting Point/Freezing Point: Not available (melting); Not available (freezing)
- Initial Boiling Point/Range: Not available
- Flash Point: > 200 °F
- Evaporation Rate: Not available
- Flammability (solid, gas): Not available
- Upper/Lower Flammability or Explosive Limit: Not available (upper); Not available (lower)
- Vapour Pressure: Not available
- Vapour Density (air = 1): Not available
- Relative Density (water = 1): 0.830
- Solubility: Insoluble in water
Partition Coefficient, n-Octanol/Water (Log Kow) Not available
Auto-ignition Temperature Not available
Decomposition Temperature Not available
Viscosity Not available (kinematic)
Other Information Liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.
Chemical Stability
Normally stable.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
Incompatible materials.
Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid).
Hazardous Decomposition Products
Hydrocarbons; very toxic carbon monoxide, carbon dioxide.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Distillates</td>
<td>&gt; 10 mg/L (rat) (4-hour exposure)</td>
<td>&gt; 5,000 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Contact with skin may cause irritation.
Serious Eye Damage/Irritation
Contact may result in moderate irritation.
STOT (Specific Target Organ Toxicity) - Single Exposure
  Inhalation
    Mist or spray may cause irritation.
  Ingestion
    Product is harmful if swallowed. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
May cause lung damage if aspirated based on physical properties (e.g. kinematic viscosity) and chemical family (hydrocarbon).
STOT (Specific Target Organ Toxicity) - Repeated Exposure
Symptoms may include dry, red, cracked skin (dermatitis).
Respiratory and/or Skin Sensitization
No information was located.
Carcinogenicity
Not known to cause cancer.
Reproductive Toxicity

Product Identifier: HP-107
SDS No.: Ver. 2 (August 1, 2017)
Date of Preparation: August 20, 2015
Development of Offspring
No indication from ingredients.

Sexual Function and Fertility
No indication from ingredients.
Effects on or via Lactation
No indication from ingredients.

Germ Cell Mutagenicity
No information was located.
Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION
Toxic to aquatic life.
Persistence and Degradability
Not readily biodegradable.
Bioaccumulative Potential
No information was located.
Mobility in Soil
Not soluble in water.

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal. Disposing of this products in a landfill is not recommended.

SECTION 14. TRANSPORT INFORMATION
Special Precautions for User
Not applicable
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
Consult Transchem Pro Inc. regarding status of ingredients.
USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.
Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: Petroleum Distillates (CAS# 64742-46-7). Dimethylpolysiloxane (CAS # 63148-62-9)
SARA Title III - Section 313: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION
NFPA Rating
Health - 1  Flammability - 1  Instability - 0
SDS Prepared By
Technical Group
Date of Preparation
August 20, 2015

Product Identifier: HP-107
SDS No.: Ver. 2 (August 1, 2017)
Date of Preparation: August 20, 2015
HP-109

SECTION 1. IDENTIFICATION

Product Identifier: HP-109
Other Means of Identification: High-Gloss Tire Dressing - Water-based
Recommended Use: Used on tires and vinyl to give glossy finish.
Restrictions on Use: None known.
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours, CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (August 2, 2017)
Date of Preparation: January 14, 2016

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification:
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2B
GHS Label Elements:

Signal Word:
Warning
Hazard Statement(s):
H320 Causes eye irritation.
H315 Causes skin irritation.
Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
Other Hazards:
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polydimethylsiloxane Emulsion</td>
<td>Mixture</td>
<td>&lt;50</td>
<td>N/A</td>
</tr>
<tr>
<td>Hydrotreated Light Distillates</td>
<td>64742-47-8</td>
<td>&lt;5</td>
<td>N/A</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>&lt;3</td>
<td>Ethylene glycol monobutyl ether, Butyl Cellosolve</td>
</tr>
</tbody>
</table>

Product Identifier: HP-109
SDS No.: Ver. 2 (August 2, 2017)
Date of Preparation: January 14, 2016
Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause irritation. If in eyes: may cause irritation.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Does not burn.

Special Protective Equipment and Precautions for Fire-fighters
No special precautions are necessary.
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks: dike spilled product to prevent runoff. Remove or recover liquid
using pumps or vacuum equipment. Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.
Other Information
Report spills to local health, safety and environmental authorities, as required.

**SECTION 7. HANDLING AND STORAGE**

Precautions for Safe Handling
Do not get in eyes. Avoid repeated or prolonged skin contact. Do not swallow. Keep out of reach of children.

Conditions for Safe Storage
Store at ambient temperature. Keep from freezing. Avoid high heat.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td>20 ppm C</td>
<td>50 ppm C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin</td>
<td>Skin</td>
</tr>
<tr>
<td>Hydrotreated Light Distillates</td>
<td>200 mg/m³</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls
General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
- Eye/Face Protection
  - Wear chemical safety goggles.
- Skin Protection
  - Use impervious (rubber, nitrile) gloves.
- Respiratory Protection
  - Not normally required if product is used as directed. For non-routine or emergency situations: wear a NIOSH approved air-purifying respirator with an appropriate cartridge.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Basic Physical and Chemical Properties</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White liquid. Particle Size: Not available</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>7 - 8</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not available (melting); Not available (freezing)</td>
</tr>
<tr>
<td>Initial Boiling Point/Range</td>
<td>&gt; 212 ºF</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt; 200 ºF</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>0.10 (n-butyl acetate = 1)</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Will not burn.</td>
</tr>
<tr>
<td>Upper/Lower Flammability or Explosive Limit</td>
<td>Not available (upper); Not available (lower)</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour Density (air = 1)</td>
<td>&gt; 1</td>
</tr>
<tr>
<td>Relative Density (water = 1)</td>
<td>1.0</td>
</tr>
<tr>
<td>Solubility</td>
<td>Moderately soluble in water</td>
</tr>
<tr>
<td>Partition Coefficient, n-Octanol/Water (Log Kow)</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Product Identifier: HP-109
SDS No.: Ver. 2 (August 2, 2017)
Date of Preparation: January 14, 2016
SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
High temperatures. Freezing. Incompatible materials.

Incompatible Materials
Strong acids (e.g. hydrochloric acid). Soft metals.

Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Hydrotreated Light Distillates</td>
<td>&gt; 5 mg/L</td>
<td>&gt; 5000 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Contact causes irritation.

Serious Eye Damage/Irritation
May cause eye irritation.

STOT (Specific Target Organ Toxicity) - Single Exposure
  Inhalation
  Vapours and mists may be irritating.
  Ingestion
  May cause irritation to the gastrointestinal tract.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
No information was located.

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive Toxicity

Development of Offspring
Development of Offspring
Does not cause harm to the unborn child.
Sexual Function and Fertility
No information was located.
Effects on or via Lactation
No information was located.
Germ Cell Mutagenicity
No information was located.
Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION
Product is fully biodegradable. Low concentrations may be harmful to fish and other aquatic organisms.
Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L (Lepomis macrochirus (bluegill); 96-hour)</td>
<td>1550 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>&gt; 100 mg/L (21-day; semi-static)</td>
<td></td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 21-day; semi-static)</td>
<td></td>
</tr>
<tr>
<td>Hydrotreated Light Distillates</td>
<td>1-10 mg/L</td>
<td></td>
<td>1-10 mg/L</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION
Special Precautions for User
Not applicable
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are listed on the TSCA Inventory.
Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.

Product Identifier: HP-109
SDS No.: Ver. 2 (August 2, 2017)
Date of Preparation: January 14, 2016
SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 1  Flammability - 0  Instability - 1

SDS Prepared By
Technical Group

Date of Preparation
January 14, 2016

Revision Indicators
The following SDS content was changed on August 02, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 4. FIRST-AID MEASURES; Eye Contact.
SECTION 6. ACCIDENTAL RELEASE MEASURES; Methods and Materials for Containment and Cleaning up.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Respiratory Protection.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.

Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: HP-119
Other Means of Identification: Clear Coat Protectant - Orange Citrus Scent
Recommended Use: Protectant for use in automatic carwash foam arches.
Restrictions on Use: None known.
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 1 (December 7, 2017)
Date of Preparation: May 26, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A; Aspiration hazard - Category 1

GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.
Other Hazards
None known.
### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>64742-46-7</td>
<td>10-30</td>
<td>Mineral seal oil</td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyltrimethyl, chlorides</td>
<td>61789-77-3</td>
<td>10-30</td>
<td>Di-alkyl Quaternary Ammonium Chloride</td>
</tr>
<tr>
<td>Amines, C14-18 and C16-18-unsatd. alkyl, ethoxylated</td>
<td>68155-39-5</td>
<td>5-10</td>
<td>Ethoxylated Fatty Acid Amine</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>3-7</td>
<td>Ethylene glycol butyl ether, Butyl cellosolve</td>
</tr>
</tbody>
</table>

**Notes**

The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

### SECTION 4. FIRST-AID MEASURES

**First-aid Measures**

**Inhalation**

Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

**Skin Contact**

Avoid direct contact. Wear chemical protective clothing if necessary. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely. If skin irritation occurs get medical advice/attention.

**Eye Contact**

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

**Ingestion**

Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

**Most Important Symptoms and Effects, Acute and Delayed**

If on skin: repeated or prolonged exposure can irritate the skin. Symptoms include slight redness and swelling. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

**Immediate Medical Attention and Special Treatment**

**Target Organs**

Eyes, skin.

**Special Instructions**

Rinse affected area (skin, eyes) thoroughly with water.

**Medical Conditions Aggravated by Exposure**

None known.

### SECTION 5. FIRE-FIGHTING MEASURES

**Extinguishing Media**

**Suitable Extinguishing Media**

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

**Unsuitable Extinguishing Media**

None known.

**Specific Hazards Arising from the Chemical**

Treat as combustible fluid.

**Special Protective Equipment and Precautions for Fire-fighters**
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike spilled product to prevent runoff. Remove or recover liquid using pumps or vacuum equipment. Contact emergency services and manufacturer/supplier for advice.
Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Store in an area that is: clean, dry. Store in closed container. Keep from freezing. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 ppm C</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin</td>
<td></td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated</td>
<td></td>
<td>5 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Middle</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

   Eye/Face Protection
   Wear chemical safety goggles and face shield when contact is possible.

   Skin Protection
   Wear chemical protective clothing e.g. gloves, aprons, boots.

   Respiratory Protection
   Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Dark orange liquid.</td>
</tr>
<tr>
<td>Odour</td>
<td>Citrus</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Product Identifier: HP-119
SDS No.: Ver. 1 (December 7, 2017)
Date of Preparation: May 26, 2015
### pH
7 - 9

### Melting Point/Freezing Point
Not available (melting); Not available (freezing)

### Initial Boiling Point/Range
Not available

### Flash Point
> 200 °F (93 °C) (closed cup)

### Evaporation Rate
Not available

### Flammability (solid, gas)
Not available

### Upper/Lower Flammability or Explosive Limit
Not available (upper); Not available (lower)

### Vapour Pressure
Not available

### Vapour Density (air = 1)
Not available

### Vapour Density (air = 1)
0.92

### Solubility
Soluble in water

### Partition Coefficient, n-Octanol/Water (Log Kow)
Not available

### Auto-ignition Temperature
Not available

### Decomposition Temperature
Not available

### Viscosity
Not available (kinematic)

### Relative Density (water = 1)
0.92

### Upper/Lower Flammability or Explosive Limit
Not available (upper); Not available (lower)

### Other Information
Liquid

### SECTION 10. STABILITY AND REACTIVITY

#### Reactivity
Not reactive.

#### Chemical Stability
Normally stable.

#### Possibility of Hazardous Reactions
None known.

#### Conditions to Avoid
None known.

#### Incompatible Materials
None known.

#### Hazardous Decomposition Products
Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; corrosive hydrogen chloride; hydrocarbons.

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Likely Routes of Exposure
Skin contact; eye contact.

#### Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
<tr>
<td>(4-hour exposure)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>&gt; 10 mg/L (rat) (4-hour exposure)</td>
<td>&gt; 5,000 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides</td>
<td></td>
<td>200-2000 mg/kg (rat)</td>
<td></td>
</tr>
</tbody>
</table>

#### Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.
Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure
- Inhalation
  May cause nose and throat irritation.
- Ingestion
  May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
May cause lung damage if aspirated based on physical properties (e.g. kinematic viscosity) and chemical family (hydrocarbon).

STOT (Specific Target Organ Toxicity) - Repeated Exposure
May cause blisters, rash. Symptoms may include dry, red, cracked skin (dermatitis). May cause irritation of the respiratory system. May cause respiratory tract injury, chemical pneumonia, dizziness, nausea.

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive Toxicity
- Development of Offspring
  No indication from ingredients.
- Sexual Function and Fertility
  No indication from ingredients.
- Effects on or via Lactation
  No indication from ingredients.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L (Lepomis</td>
<td>1550 mg/L (Daphnia magna</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>macrochirus (bluegill); 96-hour)</td>
<td>magna (water flea);</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds,</td>
<td>0.195 mg/L (96-hour)</td>
<td>0.3 mg/L (Daphnia magna</td>
<td></td>
<td></td>
</tr>
<tr>
<td>dicoco alkyldimethyl, chlorides</td>
<td></td>
<td>(water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>&gt; 100 mg/L (21-day; semi-static)</td>
<td></td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 21-day; semi-static)</td>
<td></td>
</tr>
</tbody>
</table>

Product Identifier: HP-119
SDS No.: Ver. 1 (December 7, 2017)
Date of Preparation: May 26, 2015
Quaternary ammonium compounds, dicoco alkyl dimethyl, chlorides | 0.15 mg/L (Daphnia magna (water flea); 21-day)

Persistence and Degradability

(2-Butoxyethanol) Biodegradable as per OECD 301E tests for ready biodegradability. Degrades rapidly based on quantitative tests.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION


Special Precautions for User
Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
Consult Transchem Pro Inc. regarding status of ingredients.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.

Additional USA Regulatory Lists
SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).
New Jersey Right To Know: 2-butoxyethanol (CAS: 111-76-2).
California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 0    Flammability - 2    Instability - 0

SDS Prepared By
Technical Group

Date of Preparation
May 26, 2015

Revision Indicators
The following SDS content was changed on December 07, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Eye Contact.
SECTION 5. FIRE-FIGHTING MEASURES; Special Protective Equipment and Precautions for Fire-fighters.
SECTION 6. ACCIDENTAL RELEASE MEASURES; Methods and Materials for Containment and Cleaning up.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density; pH.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Skin Corrosion/Irritation; Serious Eye Damage/Irritation; Inhalation; Ingestion; Aspiration Hazard; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.

Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or...
disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: HP-210
Other Means of Identification: Drying Agent
Recommended Use: Used for removal of water and water spots in tunnel car wash applications.
Restrictions on Use: None known.
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 1
Date of Preparation: September 11, 2018

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A; Aspiration hazard - Category 1

GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H304 May be fatal if swallowed and enters airways.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves.
P280 Wear eye protection/face protection.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
P331 Do NOT induce vomiting.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.
Other Hazards
None known.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, dicoco</td>
<td>61789-77-3</td>
<td>15-30</td>
<td>Di-Alkyl Quaternary Ammonium Chloride</td>
</tr>
<tr>
<td>alkyldimethyl, chlorides</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>64742-46-7</td>
<td>15-30</td>
<td>Mineral Seal Oil</td>
</tr>
<tr>
<td>Amines, C14-18 and C16-18-unsatd. alkyl,</td>
<td>68155-39-5</td>
<td>5-10</td>
<td>Ethoxylated Fatty Acid Amine</td>
</tr>
<tr>
<td>ethoxylated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>2-4</td>
<td>Ethylene glycol butyl ether, Butyl Cellosolve</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause mild irritation. Symptoms include slight redness and swelling. May cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Do not direct solid stream of water into burning liquid. Contact with water causes violent frothing and spattering.
Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; products of incomplete combustion.

Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Do NOT use combustible materials such as sawdust. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike spilled product to prevent runoff. Floors may be slippery.

Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage

Store in an area that is: cool, dry, separate from incompatible materials (see Section 10: Stability and Reactivity). Keep out of reach of children. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSOAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>5 mg/m3</td>
<td>10 mg/m3</td>
<td>5 mg/m3</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>20 ppm C Skin</td>
<td>50 ppm Skin</td>
<td></td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection
Wear chemical safety goggles and face shield when contact is possible.

Skin Protection
Wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection
Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance
Pink liquid.
Odour: Mild
Odour Threshold: Not available
pH: 6.5 - 9.5
Melting Point/Freezing Point: Not available (melting); Not available (freezing)
Initial Boiling Point/Range: Not available
Flash Point: > 93.3 °C
Evaporation Rate: Not available
Flammability (solid, gas): Not available
Upper/Lower Flammability or Explosive Limit: Not available (upper); Not available (lower)
Vapour Pressure: Not available
Vapour Density (air = 1): Not available
Relative Density (water = 1): 0.91
Solubility: Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow): Not available
Auto-ignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available (kinematic)

Other Information:
Physical State: Liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.
Chemical Stability
Normally stable.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
Open flames, sparks, static discharge, heat and other ignition sources. Incompatible materials.
Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid), strong reducing agents (e.g. hydrides).
Hazardous Decomposition Products
Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; corrosive hydrogen chloride; hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Skin contact; eye contact; ingestion.
Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides</td>
<td>200-2000 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>&gt; 10 mg/L (rat) (4-hour exposure)</td>
<td>&gt; 5,000 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat) (4-hour exposure)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Product Identifier: HP-210
SDS No.: Ver. 1
Date of Preparation: September 11, 2018
Skin Corrosion/Irritation
Human experience shows mild irritation.

Serious Eye Damage/Irritation
Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure
Inhalation
When misted may cause nose and throat irritation, lung irritation. Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest.

Ingestion
May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
May cause lung damage if aspirated based on physical properties (e.g. kinematic viscosity) and chemical family (hydrocarbon).

STOT (Specific Target Organ Toxicity) - Repeated Exposure
Symptoms may include dry, red, cracked skin (dermatitis).

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive Toxicity
Development of Offspring
No indication from ingredients.

Sexual Function and Fertility
No indication from ingredients.

Effects on or via Lactation
No indication from ingredients.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity
Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish (96-hour)</th>
<th>EC50 Fish (Daphnia magna; 48-hour)</th>
<th>ErC50 Aquatic Plants (Lepomis macrochirus; 96-hour)</th>
<th>ErC50 Algae (Daphnia magna; 48-hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, dicoco alkylidimethyl, chlorides</td>
<td>0.195 mg/L</td>
<td>0.3 mg/L</td>
<td>1490-2950 mg/L (bluegill; 96-hour)</td>
<td>1550 mg/L (Daphnia magna; 48-hour)</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Persistence and Degradability
(2-Butoxyethanol) Biodegradable as per OECD 301 tests for ready biodegradability. Degrades rapidly based on quantitative tests.

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.

Additional USA Regulatory Lists
SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).
New Jersey Right To Know: 2-butoxyethanol (CAS: 111-76-2).
California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION
NFPA Rating
Health - 1  Flammability - 2  Instability - 0

SDS Prepared By
Technical Group

Date of Preparation
September 11, 2018

Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: HP-319
Other Means of Identification: Instant Shine - Cool Mango Scent
Recommended Use: Sealant for touchless car wash applications.
Restrictions on Use: None known.
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (March 7, 2017)
Date of Preparation: May 26, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A; Skin sensitization - Category 1; Aspiration hazard - Category 1

GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H304 May be fatal if swallowed and enters airways.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
Prevention:
P261 Avoid breathing dust, fume, gas, mist, vapours or spray.
P264 Wash hands and skin thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
P331 Do NOT induce vomiting.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Product Identifier: HP-319
SDS No.: Ver. 2 (March 7, 2017)
Date of Preparation: May 26, 2015
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyl dimethyl, chlorides</td>
<td>61789-77-3</td>
<td>8-12</td>
<td>Di-Alkyl Quaternary Ammonium Chloride</td>
</tr>
<tr>
<td>Petroleum Distillates</td>
<td>64741-44-2</td>
<td>7-15</td>
<td>Mineral seal oil</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>5-10</td>
<td>Ethylene glycol butyl ether, Butyl cellosolve</td>
</tr>
<tr>
<td>Amines, C14-18 and C16-18-unsatd. alkyl, ethoxylated</td>
<td>68155-39-5</td>
<td>5-8</td>
<td>Ethoxylated Fatty Acid Amine</td>
</tr>
<tr>
<td>Amines, N-tallow alkyltrimethylenedi-, propoxylated</td>
<td>68603-75-8</td>
<td>&lt;1</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Avoid direct contact. Wear chemical protective clothing if necessary. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Completely decontaminate clothing, shoes, and leather goods before reuse or discard. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause moderate to severe irritation. Repeated or prolonged exposure can irritate the skin. Symptoms include pain, redness, and swelling. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.
SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
- Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
- None known.

Specific Hazards Arising from the Chemical
- Treat as combustible fluid.

Special Protective Equipment and Precautions for Fire-fighters
- Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.
- See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
- Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
- It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up
- Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
- Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
- Large spills or leaks: dike and recover contaminated water for appropriate disposal. Contact emergency services and manufacturer/supplier for advice.
- Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information
- Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
- Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
- Store in an area that is: clean, dry. Store in closed container. Keep from freezing. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>Petroleum Distillates</td>
<td>200 mg/m3</td>
<td>20 ppm C Skin</td>
<td>50 ppm Skin</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls
- General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Product Identifier: HP-319
SDS No.: Ver. 2 (March 7, 2017)
Individual Protection Measures

Eye/Face Protection
Wear chemical safety goggles and face shield when contact is possible.

Skin Protection
Wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection
Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance Dark blue liquid.
Odour Tropical
Odour Threshold Not available
pH 6 - 8
Melting Point/Freezing Point Not available (melting); Not available (freezing)
Initial Boiling Point/Range Not available
Flash Point > 150 °F (66 ºC) (closed cup)
Evaporation Rate Not available
Flammability (solid, gas) Not available
Upper/Lower Flammability or Explosive Limit Not available (upper); Not available (lower)
Vapour Pressure Not available
Vapour Density (air = 1) Not available
Relative Density (water = 1) 0.95 - 0.97
Solubility Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow) Not available
Auto-ignition Temperature Not available
Decomposition Temperature Not available
Viscosity Not available (kinematic)

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
None known.

Incompatible Materials
None known.

Hazardous Decomposition Products
Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; corrosive hydrogen chloride;
SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Skin contact; eye contact.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat) (4-hour exposure)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Petroleum Distillates</td>
<td>&gt; 5,000 mg/kg (rat)</td>
<td>&gt; 2,000 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyl(dimethyl) chlorides</td>
<td></td>
<td>200-2000 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Amines, N-tallow alkyl(trimethylene) propoxylated</td>
<td></td>
<td>2000 mg/kg (rat)</td>
<td></td>
</tr>
</tbody>
</table>

STOT (Specific Target Organ Toxicity) - Single Exposure
Inhalation
No information was located. Nose and throat irritation.

Ingestion
May cause nausea, irritation of the mouth, throat and stomach. May aggravate pre-existing liver or kidney condition.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
Respiratory and/or Skin Sensitization
Sensitization may occur following exposure to the liquid or vapour. (Amines, N-tallow alkyl(trimethylene) propoxylated)

Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Not a carcinogen.

Reproductive Toxicity

Development of Offspring
No indication from ingredients.

Sexual Function and Fertility
No indication from ingredients.

Effects on or via Lactation
No indication from ingredients.
Germ Cell Mutagenicity
No information was located.
Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L</td>
<td>1550 mg/L (Daphnia</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Lepomis macrochirus</td>
<td>magna (water flea);</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(bluegill); 96-hour)</td>
<td>48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkylidimethyl, chlorides</td>
<td>0.195 mg/L (96-hour)</td>
<td>0.3 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>&gt; 100 mg/L (21-day; semi-static)</td>
<td></td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 21-day; semi-static)</td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkylidimethyl, chlorides</td>
<td>0.15 mg/L (Daphnia magna (water flea); 21-day)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and Degradability

2-Butoxyethanol: Biodegradable as per OECD 301E tests for ready biodegradability. Degrades rapidly based on quantitative tests.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION


Special Precautions

Not applicable

for User

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
Consult Transchem Pro Inc. regarding status of ingredients.
USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are commercially available and presumed to be listed by manufacturer.

Additional USA Regulatory Lists

SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).
New Jersey Right To Know: 2-butoxyethanol (CAS: 111-76-2).
California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA Rating</th>
<th>Health - 1</th>
<th>Flammability - 1</th>
<th>Instability - 0</th>
</tr>
</thead>
</table>

SDS Prepared By: Technical Group

Date of Preparation: May 26, 2015

Revision Indicators: The following SDS content was changed on March 07, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification; Manufacturer.
SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; pH.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Aspiration Hazard; Respiratory and/or Skin Sensitization; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.

Disclaimer: The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Identifier</th>
<th>HP-460</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Means of</td>
<td>Low pH Wheel &amp; Rim Cleaner</td>
</tr>
<tr>
<td>Identification</td>
<td></td>
</tr>
<tr>
<td>Recommended Use</td>
<td>Used to clean and brighten metallic wheels and rims.</td>
</tr>
<tr>
<td>Restrictions on Use</td>
<td>None known.</td>
</tr>
<tr>
<td>Supplier</td>
<td></td>
</tr>
<tr>
<td>Emergency Phone No.</td>
<td>INFOTRAC (U.S.), 1-800-535-5053, 24 Hours</td>
</tr>
<tr>
<td></td>
<td>CANUTEC (Canada), 613-996-6666, 24 Hours</td>
</tr>
<tr>
<td>SDS No.</td>
<td>Ver. 2 (August 2, 2017)</td>
</tr>
<tr>
<td>Date of Preparation</td>
<td>May 29, 2015</td>
</tr>
</tbody>
</table>

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 1C; Serious eye damage/eye irritation - Category 1

GHS Label Elements

Signal Word: Danger

Hazard Statement(s):
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

Prevention:
P260 Do not breathe dusts or mists.
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE/doctor.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Other Hazards
None known.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic Salt</td>
<td>CBI*</td>
<td>8-12</td>
<td>N/A</td>
</tr>
<tr>
<td>Acid Salt</td>
<td>CBI*</td>
<td>4-8</td>
<td>N/A</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2</td>
<td>4-8</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Immediately call a Poison Centre or doctor.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause moderate to severe irritation. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Review Section 10 (Stability and Reactivity) for additional information.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Product Identifier:  HP-460
SDS No.: Ver. 2 (August 2, 2017)
Date of Preparation: May 29, 2015
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike spilled product to prevent runoff.
Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
See advice on temperature in Conditions to Avoid in Section 10 (Stability and Reactivity) to determine suitable storage temperature.
Store in an area that is: cool, clean, dry. Store in closed container. Do not store in metal containers. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
   Eye/Face Protection
      Wear chemical safety goggles and face shield when contact is possible.
   Skin Protection
      Wear chemical protective clothing e.g. gloves, aprons, boots.
      Suitable materials are: butyl rubber, natural rubber.
   Respiratory Protection
      Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties
Appearance        Pink liquid.
Odour             Mild
Odour Threshold   Not available
pH                < 2
Melting Point/Freezing Point Not available (melting); Not available (freezing)
Initial Boiling Point/Range Not available
Flash Point       Not applicable
Evaporation Rate  Not available
Flammability (solid, gas) Will not burn.
Upper/Lower Flammability or Explosive Limit
   Not applicable (upper); Not applicable (lower)
Vapour Pressure   Not applicable
Vapour Density (air = 1) Not available
Relative Density (water = 1) 1.08
Solubility: Soluble in water
Partition Coefficient, \( n \)-Octanol/Water (Log Kow): Not available
Auto-ignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available (kinematic)

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity
Not reactive.

Chemical Stability
Unstable under certain conditions - see Conditions to Avoid.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials. Temperatures above 140.0 °F (60.0 °C)

Incompatible Materials
Oxidizing agents (e.g. peroxides), nitrates, chlorates, hypochlorites.

Hazardous Decomposition Products
Thermal decomposition: very toxic carbon monoxide, carbon dioxide.
Upon contact with metals: flammable hydrogen gas.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td></td>
<td>5400 mg/kg (mouse)</td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing. Prolonged exposure may cause eye damage.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
May cause nose and throat irritation, lung irritation.

Ingestion
Product may be harmful or fatal if swallowed.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause irritation of the respiratory system. May cause respiratory tract injury.

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity
No components listed by IARC, ACGIH and NTP.

Reproductive Toxicity
Development of Offspring

---

Product Identifier: HP-460
SDS No.: Ver. 2 (August 2, 2017)
Date of Preparation: May 29, 2015
No indication from ingredients.
Sexual Function and Fertility
No indication from ingredients.
Effects on or via Lactation
No indication from ingredients.

Germ Cell Mutagenicity
No information was located.
Interactive Effects
No information was located.

### SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

**Toxicity**

**Acute Aquatic Toxicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>440-760 mg/L (96-hour)</td>
<td>1525 mg/L (Daphnia magna (water flea))</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

### SECTION 14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Regulation</th>
<th>UN No.</th>
<th>Proper Shipping Name</th>
<th>Transport Hazard Class(es)</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian TDG</td>
<td>3264</td>
<td>CORROSIVE LIQUID, Acidic, Inorganic (Phosphoric Acid)</td>
<td>Class 8</td>
<td>III</td>
</tr>
<tr>
<td>US DOT</td>
<td>3264</td>
<td>CORROSIVE LIQUID, Acidic, Inorganic (Phosphoric Acid)</td>
<td>Class 8</td>
<td>III</td>
</tr>
</tbody>
</table>

Special Precautions for User
Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

### SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
Consult Transchem Pro Inc. regarding status of ingredients.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.

Additional USA Regulatory Lists
- SARA Title III - Section 313: No listed substances are known to be present.
- New Jersey Right To Know: Phosphoric acid (CAS: 7664-38-2).
- California Proposition 65: No listed substances are known to be present.

### SECTION 16. OTHER INFORMATION

Product Identifier: HP-460
SDS No.: Ver. 2 (August 2, 2017)
Date of Preparation: May 29, 2015
The following SDS content was changed on August 02, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Eye Contact; Ingestion.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density; pH.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity.

The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: HP-550

Other Means of Identification: Foaming Bug Remover - Lemon Scent

Recommended Use: Foaming detergent used to remove bug residue from vehicle surface.

Restrictions on Use: None known.


Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours

CANUTEC (Canada), 613-996-6666, 24 Hours

SDS No.: Ver. 2 (July 31, 2017)

Date of Preparation: May 28, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A

GHS Label Elements

Signal Word: Warning

Hazard Statement(s):
H319 Causes serious eye irritation.
H315 Causes skin irritation.

Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Other Hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>64-02-8</td>
<td>9-12</td>
<td>N/A</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>107-41-5</td>
<td>1-4</td>
<td>2-methylpentane-2,4-diol</td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>6834-92-0</td>
<td>1-2</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Product Identifier: HP-550
SDS No.: Ver. 2 (July 31, 2017)
Date of Preparation: May 28, 2015
SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink one glass of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: causes moderate to severe irritation. Repeated or prolonged exposure can irritate or burn the skin. If in eyes: causes moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Skin, eyes.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Do not direct solid stream of water into burning liquid. Contact with water causes violent frothing and spattering.

Special Protective Equipment and Precautions for Fire-fighters
No special precautions are necessary. Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used...
absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks: dike spilled product to prevent runoff. Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Store in closed container. Separate from incompatible materials (see Section 10: Stability and Reactivity). Keep out of reach of children. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td></td>
<td>25 ppm C</td>
<td></td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls
General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
- Eye/Face Protection
  - Wear chemical safety goggles.
- Skin Protection
  - Wear chemical protective clothing e.g. gloves, aprons, boots.
  - Suitable materials are: polyvinyl chloride, latex rubber, neoprene rubber.
- Respiratory Protection
  - Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties
- Appearance: Amber liquid.
- Odour: Lemon
- Odour Threshold: Not available
- pH: 12.5 - 13.3
- Melting Point/Freezing Point: Not available (freezing)
- Initial Boiling Point/Range: Not applicable
- Flash Point: Not applicable
- Evaporation Rate: Not available
- Flammability (solid, gas): Will not burn.
- Upper/Lower Flammability or Explosive Limit: Not applicable (upper); Not applicable (lower)
- Vapour Pressure: Not applicable
- Vapour Density (air = 1): ~ 1
- Relative Density (water = 1): 1.09
- Solubility: Soluble in water
- Partition Coefficient, n-Octanol/Water (Log Kow): Not available

Product Identifier: HP-550
SDS No.: Ver. 2 (July 31, 2017)
Date of Preparation: May 28, 2015
SECTION 10. STABILITY AND REACTIVITY

Reactivity
None known.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials.

Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid).

Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td></td>
<td>1153 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium EDTA</td>
<td>&gt; 1-5 mg/L (rat) (4-hour exposure)</td>
<td>1780 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>&gt; 310 mg/m3 (rat) (1-hour exposure)</td>
<td>3700 mg/kg (rat)</td>
<td>8560 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
May cause nose and throat irritation, lung irritation, coughing, headaches.

Ingestion
Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
Symptoms may include dry, red, cracked skin (dermatitis).

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity
Contains D'Limonene. No components listed by ACGIH and NTP. IARC lists D'Limonene in Group 3, inadequate in humans, and inadequate or limited in animals.
Reproductive Toxicity
   Development of Offspring
      No indication from ingredients.
   Sexual Function and Fertility
      No indication from ingredients.
   Effects on or via Lactation
      No indication from ingredients.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION
All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity
   Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td>210 mg/L (96-hour)</td>
<td>216 mg/L (96-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium EDTA</td>
<td>34-62 mg/L</td>
<td>113 mg/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Lepomis macrochirus (bluegill); 96-hour; static)</td>
<td>(Daphnia magna (water flea); 48-hour; static)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>8690 mg/L</td>
<td>3200 mg/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Pimephales promelas (fathead minnow); 96-hour; flow-through)</td>
<td>(Daphnia magna (water flea); 48-hour; static)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and Degradability
(Tetrasodium EDTA) By using samples from a river, a ditch and a lake as inocula in the closed bottle test, a biodegradation between 60 and 83% was obtained after 49 days at pH 6.5, whereas between 53 and 72% were obtained after 28 days at pH 8.0.

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

Special Precautions for User
Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
Canada
   Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
   Consult Transchem Pro Inc. regarding status of ingredients.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.

Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: Hexylene glycol (CAS: 107-41-5).
SARA Title III - Section 313: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 1  Flammability - 0  Instability - 0

SDS Prepared By  Technical Group
Date of Preparation  May 28, 2015

Revision Indicators
The following SDS content was changed on July 31, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 4. FIRST-AID MEASURES; Eye Contact.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Control Parameters; Respiratory Protection.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Bioaccumulative Potential.

Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: HP-640
Other Means of Identification: Low pH Touchless Presoak - Heavy Duty
Recommended Use: Used as presoak in touchless carwash applications.
Restrictions on Use: None known.
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (August 16, 2017)
Date of Preparation: May 11, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 1C; Serious eye damage/eye irritation - Category 1
GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
Prevention:
P260 Do not breathe dusts or mists.
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE/doctor.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Other Hazards:
None known.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>68439-46-3</td>
<td>7-13</td>
<td>Alcohol Ethoxylate</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2</td>
<td>7-12</td>
<td>N/A</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>5-10</td>
<td>Ethylene glycol monobutyl ether, Butyl cellosolve</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Immediately call a Poison Centre or doctor.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause moderate to severe irritation. May cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Review Section 10 (Stability and Reactivity) for additional information.

Flammable hydrogen; very toxic carbon monoxide, carbon dioxide.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Small spills or leaks: review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

Large spills or leaks: dike spilled product to prevent runoff. Contact emergency services and manufacturer/supplier for advice. Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage

Store in an area that is: clean, cool, dry, separate from incompatible materials (see Section 10: Stability and Reactivity). Do not store in metal containers. Store in closed container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>1 mg/m3</td>
<td>3 mg/m3</td>
<td>1 mg/m3</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td>20 ppm C</td>
<td>50 ppm</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: butyl rubber, natural rubber.

Respiratory Protection

Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance: Clear liquid.
Odour: Mild
Odour Threshold: Not available
pH: < 2.0
Melting Point/Freezing Point: Not available (melting); Not available (freezing)
Initial Boiling Point/Range: Not available
Flash Point: Not applicable
Evaporation Rate: Not available

Product Identifier: HP-640
SDS No.: Ver. 2 (August 16, 2017)
Date of Preparation: May 11, 2015
Flammability (solid, gas) Will not burn.
Upper/Lower Flammability or Explosive Limit Not applicable (upper); Not applicable (lower)
Vapour Pressure Not available
Vapour Density (air = 1) Not available
Relative Density (water = 1) 1.06
Solubility Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow) Not available
Auto-ignition Temperature Not available
 Decomposition Temperature Not available
Viscosity Not available (kinematic)

Other Information
Physical State Liquid
Other Physical Property 1 Evaporation Rate: Similar to water
Other Physical Property 2 Specific Gravity: 1.06 g/cc

SECTION 10. STABILITY AND REACTIVITY
Reactivity
Not reactive.
Chemical Stability
Unstable under certain conditions - see Conditions to Avoid.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
Temperatures above 110.0 ºC (230.0 ºF)
Incompatible Materials
Oxidizers, nitrates, chlorates, metals (e.g. aluminum).
Hazardous Decomposition Products
Thermal decomposition: very toxic carbon monoxide, carbon dioxide.
Upon contact with metals: flammable hydrogen gas.

SECTION 11. TOXICOLOGICAL INFORMATION
Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.
Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td></td>
<td>1530 mg/kg (rat)</td>
<td>2740 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td></td>
<td>1378 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat) (4-hour exposure)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation. Symptoms include pain, redness, and swelling.
Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Prolonged exposure may cause eye damage.
STOT (Specific Target Organ Toxicity) - Single Exposure
Inhalation
Can cause nose, throat and respiratory tract irritation, coughing and headache.
**Ingestion**
Product may be harmful or fatal if swallowed.

**Aspiration Hazard**
No information was located.

**STOT (Specific Target Organ Toxicity) - Repeated Exposure**
No indication from ingredients.

**Respiratory and/or Skin Sensitization**
Not a skin sensitizer. Respiratory sensitizer.

**Carcinogenicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Reproductive Toxicity**
- Development of Offspring
  No indication from ingredients.
- Sexual Function and Fertility
  No indication from ingredients.
- Effects on or via Lactation
  No indication from ingredients.

**Germ Cell Mutagenicity**
No information was located.

**Interactive Effects**
No information was located.

---

**SECTION 12. ECOLOGICAL INFORMATION**

All components of this product are biodegradable by Regulation (EC) No 648/2004.

**Toxicity**

**Acute Aquatic Toxicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>138 mg/L (96-hour)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>11 mg/L (Pimephales promelas (fathead minnow); 96-hour; fresh water)</td>
<td>5.3 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L (Lepomis macrochirus (bluegill); 96-hour)</td>
<td>1550 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Chronic Aquatic Toxicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>1.5 mg/L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>&gt; 100 mg/L (21-day; semi-static)</td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 21-day; semi-static)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Persistence and Degradability**
(Alcohols, C9-11, ethoxylated, liquids) Degradates rapidly based on quantitative tests. 80% ThOD, closed bottle, 28 days.
(2-Butoxyethanol) Degradates rapidly based on quantitative tests. Biodegradable as per OECD 301E tests for ready biodegradability.

**Product Identifier:** HP-640
**SDS No.:** Ver. 2 (August 16, 2017)
**Date of Preparation:** May 11, 2015
SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Regulation</th>
<th>UN No.</th>
<th>Proper Shipping Name</th>
<th>Transport Hazard Class(es)</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian TDG</td>
<td>3264</td>
<td>CORROSIVE LIQUID, Acidic, Inorganic (Phosphoric Acid)</td>
<td>Class 8</td>
<td>III</td>
</tr>
<tr>
<td>US DOT</td>
<td>3264</td>
<td>CORROSIVE LIQUID, Acidic, Inorganic (Phosphoric Acid)</td>
<td>Class 8</td>
<td>III</td>
</tr>
</tbody>
</table>

Special Precautions for User

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Consult Transchem Pro Inc. regarding status of ingredients.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are commercially available and presumed to be listed by manufacturer.

Additional USA Regulatory Lists

SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).

New Jersey Right To Know: Phosphoric acid (CAS: 7664-38-2); 2-butoxyethanol (CAS: 111-76-2).

California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating

Health - 2  Flammability - 0  Instability - 0

SDS Prepared By

Technical Group

Date of Preparation

May 11, 2015

Revision Indicators

The following SDS content was changed on August 16, 2017:

SECTION 1. IDENTIFICATION; Other Means of Identification.

SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.

SECTION 4. FIRST-AID MEASURES; Eye Contact.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density; pH.

SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Skin Corrosion/Irritation; Serious Eye Damage/Irritation; Carcinogenicity.

SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.

Disclaimer

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Product Identifier: HP-640

SDS No.: Ver. 2 (August 16, 2017)

Date of Preparation: May 11, 2015
HP-800

SECTION 1. IDENTIFICATION

Product Identifier HP-800
Other Means of Identification High pH Presoak Boost - Alkaline
Recommended Use Added to presoaks to increase cleaning performance.
Restrictions on Use None known.
Emergency Phone No. INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No. Ver. 2 (March 28, 2017)
Date of Preparation May 14, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 1B; Serious eye damage/eye irritation - Category 1

GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
Prevention:
P260 Do not breathe dusts or mists.
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE/doctor.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.
Other Hazards None known.

Product Identifier: HP-800
SDS No.: Ver. 2 (March 28, 2017)
Date of Preparation: May 14, 2015
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>10-15</td>
<td>Caustic soda</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>1310-58-3</td>
<td>5-10</td>
<td>Caustic potash</td>
</tr>
<tr>
<td>Sodium Silicate</td>
<td>1344-09-8</td>
<td>2-5</td>
<td>N/A</td>
</tr>
<tr>
<td>Nitrilotriacetic acid</td>
<td>139-13-9</td>
<td>2-5</td>
<td>NTA, Triglycerine</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures
Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Completely decontaminate clothing, shoes, and leather goods before reuse or discard. Discard any footwear that cannot be decontaminated. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Immediately call a Poison Centre or doctor.

Ingestion
Rinse mouth with water. Do not induce vomiting. If conscious, drink large amounts of water and milk, followed by citrus juice or dilute vinegar. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may burn the skin. Permanent scarring may result. If in eyes: may cause serious eye damage. May irritate or burn the eyes. Permanent damage including blindness may result.

Immediate Medical Attention and Special Treatment
Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media
Suitable Extinguishing Media
Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Review Section 10 (Stability and Reactivity) for additional information.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

Concentrated product: it is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

Large spills or leaks: dike spilled product to prevent runoff.

Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Do not get in eyes, on skin or on clothing. Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage

Store in an area that is: cool, dry, separate from incompatible materials (see Section 10: Stability and Reactivity). Keep out of reach of children. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV® TWA</th>
<th>OSHA PEL STEL</th>
<th>AIHA WEEL Ceiling</th>
<th>8-hr TWA</th>
<th>TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td></td>
<td>2 mg/m3 C</td>
<td>2 mg/m3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>2 mg/m3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: polyvinyl chloride, neoprene rubber, latex rubber.

Respiratory Protection

Not normally required if good ventilation is maintained and exposure guidelines are not exceeded.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance: Clear liquid.
Odour: Mild
Odour Threshold: Not available
pH: 14.0
Melting Point/Freezing Point: Not available (melting); Not available (freezing)
Initial Boiling Point/Range: Not available

Product Identifier: HP-800
SDS No.: Ver. 2 (March 28, 2017)
Date of Preparation: May 14, 2015
Flash Point Not applicable
Evaporation Rate Not available
Flammability (solid, gas) Not available
Upper/Lower Flammability or Explosive Limit Not applicable (upper); Not applicable (lower)
Vapour Pressure Not applicable
Vapour Density (air = 1) ~ 1
Relative Density (water = 1) 1.34
Solubility Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow) Not available
Auto-ignition Temperature Not available
Decomposition Temperature Not available
Viscosity Not available (kinematic)

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.
Chemical Stability
Normally stable.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
Incompatible materials.
Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid).
Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Skin contact; eye contact.
Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Silicate</td>
<td></td>
<td>1153 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td></td>
<td>500 mg/kg (rabbit)</td>
<td>1350 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td></td>
<td>365 mg/kg (rat)</td>
<td>&gt; 1260 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Nitrilotriacetic acid</td>
<td>&gt; 5 mg/L (rat) (4-hour exposure)</td>
<td>920 mg/kg (rat)</td>
<td>&gt; 5000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
May burn the skin. Permanent scarring may result. Effects may be delayed.

Serious Eye Damage/Irritation
May irritate or burn the eyes. Permanent damage including blindness may result.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
May cause nose and throat irritation, lung irritation, coughing, headaches.

Ingestion
May cause severe irritation or burns to the mouth, throat and stomach.
Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
No indication from ingredients.

Respiratory and/or Skin Sensitization
Excessive skin exposure to vapors at > 25 ppm may cause dizziness, nausea, and blood harm.

Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrilotriacetic acid</td>
<td>Group 2B</td>
<td>Not Listed</td>
<td>Reasonably</td>
<td>anticipated</td>
</tr>
</tbody>
</table>

In laboratory tests, rats and mice continuously fed massive doses of NTA showed evidence of urinary tract (bladder and kidney) toxicity, including cancer; lower doses showed none of these toxic effects.

Reproductive Toxicity

- Development of Offspring
  - No indication from ingredients.

- Sexual Function and Fertility
  - No indication from ingredients.

- Effects on or via Lactation
  - No indication from ingredients.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Silicate</td>
<td>210 mg/L (96-hour)</td>
<td>216 mg/L (96-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>45.4 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour; static)</td>
<td>100 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>80 mg/L (96-hour)</td>
<td>56 mg/L (48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitrilotriacetic acid</td>
<td>175-225 mg/L (Lepomis macrochirus (bluegill); 96-hour; static)</td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.
SECTION 14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Regulation</th>
<th>UN No.</th>
<th>Proper Shipping Name</th>
<th>Transport Hazard Class(es)</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian TDG</td>
<td>3266</td>
<td>CORROSIVE LIQUID, Basic, Inorganic (Sodium Hydroxide, Potassium Hydroxide)</td>
<td>Class 8</td>
<td>III</td>
</tr>
<tr>
<td>US DOT</td>
<td>3266</td>
<td>CORROSIVE LIQUID, Basic, Inorganic (Sodium Hydroxide, Potassium Hydroxide)</td>
<td>Class 8</td>
<td>III</td>
</tr>
</tbody>
</table>

Special Precautions for User
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
Consult Transchem Pro Inc. regarding status of ingredients.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.
Additional USA Regulatory Lists
SARA Title III - Section 313: Nitrilotriacetic acid (CAS: 139-13-9).
New Jersey Right To Know: Sodium Hydroxide (CAS: 1310-73-2); Potassium hydroxide (CAS: 1310-58-3);
Nitrilotriacetic acid (CAS: 139-13-9).
California Proposition 65: Nitrilotriacetic acid (CAS: 139-13-9).

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 2   Flammability - 0   Instability - 0

SDS Prepared By
Technical Group

Date of Preparation
May 14, 2015

Revision Indicators
The following SDS content was changed on March 28, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification; Manufacturer.
SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 7. HANDLING AND STORAGE; Precautions for Safe Handling.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Serious Eye Damage/Irritation; Ingestion; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity.
SECTION 15. REGULATORY INFORMATION; Toxic Substances Control Act (TSCA) Section 8(b).

Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: HP-919
Other Means of Identification: Wax - Cinnamon Inferno Scent - Red
Recommended Use: Sealant for touchless car wash applications.
Restrictions on Use: None known.
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver 2 (March 7, 2017)
Date of Preparation: May 26, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A; Skin sensitization - Category 1A

GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.

Prevention:
P261 Avoid breathing dust, fume, gas, mist, vapours or spray.
P264 Wash hands and skin thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Other Hazards
None known.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>1-3</td>
<td>Ethylene glycol butyl ether, Butyl cellosolve</td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkylidimethyl, chlorides</td>
<td>61789-77-3</td>
<td>1-3</td>
<td>Di-Alkyl Quaternary Ammonium Chloride</td>
</tr>
<tr>
<td>Cinnamaldehyde</td>
<td>104-55-2</td>
<td>1-2</td>
<td>Cinnamal</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Avoid direct contact. Wear chemical protective clothing if necessary. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Completely decontaminate clothing, shoes, and leather goods before reuse or discard. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: repeated or prolonged exposure can irritate the skin. Symptoms include slight redness and swelling. If in eyes: causes moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
- Eyes, skin.

Special Instructions
- Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
- None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
- Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
- None known.

Specific Hazards Arising from the Chemical
- Treat as combustible fluid.

Product Identifier: HP-919
SDS No.: Ver 2 (March 7, 2017)
Date of Preparation: May 26, 2015
Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike and recover contaminated water for appropriate disposal. Contact emergency services and manufacturer/supplier for advice.
Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Store in an area that is: clean, dry. Store in closed container. Keep from freezing. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>20 ppm C</td>
<td>50 ppm C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin</td>
<td>Skin</td>
<td></td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
   Eye/Face Protection
   Wear chemical safety goggles and face shield when contact is possible.
   Skin Protection
   Wear chemical protective clothing e.g. gloves, aprons, boots.
   Respiratory Protection
   Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties
Appearance: Red liquid.
Odour: Cinnamon
Odour Threshold: Not available
pH: 7 - 9
Melting Point/Freezing Point: Not available (melting); Not available (freezing)
Initial Boiling Point/Range: Not available
Flash Point: > 200 °F (93 °C) (closed cup)
Evaporation Rate: Not available
Flammability (solid, gas): Not available
Upper/Lower Flammability or Explosive Limit: Not available (upper); Not available (lower)
Vapour Pressure: Not available
Vapour Density (air = 1): Not available
Relative Density (water = 1): 1.01
Solubility: Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow): Not available
Auto-ignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available (kinematic)
Other Information:
Physical State: Liquid
Critical Temperature: Not available

SECTION 10. STABILITY AND REACTIVITY
Reactivity:
Not reactive.
Chemical Stability:
Normally stable.
Possibility of Hazardous Reactions:
None known.
Conditions to Avoid:
None known.
Incompatible Materials:
None known.
Hazardous Decomposition Products:
Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; corrosive hydrogen chloride; hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION
Likely Routes of Exposure:
Skin contact; eye contact.
Acute Toxicity:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Product Identifier: HP-919
SDS No.: Ver 2 (March 7, 2017)
Date of Preparation: May 26, 2015
**Skin Corrosion/Irritation**
No information was located.

**Serious Eye Damage/Irritation**
Symptoms include sore, red eyes, and tearing.

**STOT (Specific Target Organ Toxicity) - Single Exposure**
- **Inhalation**
  - No information was located.
- **Ingestion**
  - May cause nausea, irritation of the mouth, throat and stomach.

**STOT (Specific Target Organ Toxicity) - Repeated Exposure**

**Respiratory and/or Skin Sensitization**
Sensitization may occur following exposure to the liquid or vapour. (Cinnamaldehyde)

**Carcinogenicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Not a carcinogen.

**Reproductive Toxicity**
- **Development of Offspring**
  - No indication from ingredients.
- **Sexual Function and Fertility**
  - No indication from ingredients.
- **Effects on or via Lactation**
  - No indication from ingredients.

**Germ Cell Mutagenicity**
No information was located.

**Interactive Effects**
No information was located.

**SECTION 12. ECOLOGICAL INFORMATION**

All components of this product are biodegradable by Regulation (EC) No 648/2004.

**Toxicity**

**Acute Aquatic Toxicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L (Lepomis macrochirus (bluegill); 96-hour)</td>
<td>1550 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Product Identifier:** HP-919

**SDS No.:** Ver 2 (March 7, 2017)

**Date of Preparation:** May 26, 2015
<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>&gt; 100 mg/L (21-day; semi-static)</td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 21-day; semi-static)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkylidimethyl, chlorides</td>
<td>0.15 mg/L (Daphnia magna (water flea); 21-day)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and Degradability
2-Butoxyethanol: Biodegradable as per OECD 301E tests for ready biodegradability. Degrades rapidly based on quantitative tests.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION


Special Precautions for User
Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada
- Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
- Consult Transchem Pro Inc. regarding status of ingredients.

USA
- Toxic Substances Control Act (TSCA) Section 8(b)
- All ingredients are commercially available and presumed to be listed by manufacturer.
- Additional USA Regulatory Lists
  - SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).
  - New Jersey Right To Know: 2-butoxyethanol (CAS: 111-76-2).
  - California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 0  Flammability - 2  Instability - 0

SDS Prepared By
Technical Group

Date of Preparation
May 26, 2015

Revision Indicators
The following SDS content was changed on March 07, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification; Manufacturer.
SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.

Product Identifier: HP-919
SDS No.: Ver 2 (March 7, 2017)
Date of Preparation: May 26, 2015
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density; pH.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Respiratory and/or Skin Sensitization; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.

Disclaimer
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SECTION 1. IDENTIFICATION

Product Identifier: HP-920
Other Means of Identification: Bath - Raspberry Inferno Scent - Red
Recommended Use: Detergent for touchless carwash.
Restrictions on Use: None known.
Emergency Phone No.: CANUTEC (Canada), 613-996-6666, 24 Hours
INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
SDS No.: Ver. 2 (March 30, 2017)
Date of Preparation: April 28, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A

GHS Label Elements
Signal Word: Warning
Hazard Statement(s):
H319 Causes serious eye irritation.
H315 Causes skin irritation.

Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Other Hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP-920</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Sodium olefin Sulfonate

68439-57-6

15-30

N/A

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures
Inhalation
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

Ingestion
Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause moderate to severe irritation. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment
Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media
Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Directing a solid stream of water into a hot burning liquid can cause frothing and spread the fire.

Special Protective Equipment and Precautions for Fire-fighters
Do not direct solid stream of water into burning liquid.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.
Environmental Precautions
It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike spilled product to prevent runoff.
Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE
Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Comply with all applicable health and safety regulations, fire and building codes. Keep out of reach of children. Keep from freezing.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air.

Individual Protection Measures
   Eye/Face Protection
      Wear chemical safety goggles and face shield when contact is possible.
   Skin Protection
      Wear chemical protective clothing e.g. gloves, aprons, boots.
      Suitable materials are: natural rubber, nitrile rubber.
   Respiratory Protection
      Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES
Basic Physical and Chemical Properties
   Appearance       Red liquid.
   Odour            Raspberry
   Odour Threshold  Not available
   pH               7.5 - 8.5
   Melting Point/Freezing Point Not available (melting); Not available (freezing)
   Initial Boiling Point/Range  > 100 °C
   Flash Point      Not available
   Evaporation Rate Not available
   Flammability (solid, gas) Will not burn.
   Upper/Lower Flammability or Not applicable (upper); Not applicable (lower)
   Explosive Limit
   Vapour Pressure  Not available
   Vapour Density (air = 1) Not applicable
Relative Density (water = 1) 1.02
Solubility Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow) Not available
Auto-ignition Temperature Not available
Decomposition Temperature Not available
Viscosity Not available (kinematic)
Other Information
Physical State Liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.
This is a stable material.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials.

Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid), strong reducing agents (e.g. hydrides).

Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium olefin Sulfonate</td>
<td>52-206 mg/L (rat)</td>
<td>2079-2340 mg/kg (rat)</td>
<td>6300-160000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation
Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

  Inhalation
  When misted may cause nose and throat irritation, lung irritation.

  Ingestion
  May cause irritation of the mouth, throat and stomach, nausea, vomiting.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
No information was located.

Respiratory and/or Skin Sensitization

Product Identifier: HP-920
SDS No.: Ver. 2 (March 30, 2017)
Date of Preparation: April 28, 2015
Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity
Not on ACGIH, IARC, NTP and OSHA lists.

Reproductive Toxicity
Development of Offspring
No indication from ingredients.

Sexual Function and Fertility
No indication from ingredients.

Effects on or via Lactation
No indication from ingredients.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION
All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity
Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish (96-hour)</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium olefin Sulfonate</td>
<td>3.5-5 mg/L</td>
<td>4.53 (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

Special Precautions for User
Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
Consult Transchem Pro Inc. regarding status of ingredients.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.

Additional USA Regulatory Lists
SARA Title III - Section 313: No listed substances are known to be present.
New Jersey Right To Know: No listed substances are known to be present.
California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating

Health - 1  Flammability - 0  Instability - 0

SDS Prepared By

Technical Group

Date of Preparation

April 28, 2015

Revision Indicators

The following SDS content was changed on March 30, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification; Manufacturer.
SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density; pH.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity.

Disclaimer

The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: HP-950
Other Means of Identification: Low pH Friction Detergent
Recommended Use: Detergent for touchless carwash.
Restrictions on Use: None known.
Emergency Phone No.: CANUTEC (Canada), 613-996-6666, 24 Hours
INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
SDS No.: Ver. 2 (December 15, 2017)
Date of Preparation: April 29, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A; Skin sensitization - Category 1

GHS Label Elements

Signal Word:
Warning
Hazard Statement(s):
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
Prevention:
P261 Avoid breathing dust, fume, gas, mist, vapours or spray.
P264 Wash hands and skin thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Other Hazards
None known.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>68439-57-6</td>
<td>10-20</td>
<td>Sodium olefin Sulfonate</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>107-41-5</td>
<td>2-4</td>
<td>N/A</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2</td>
<td>1-2</td>
<td>N/A</td>
</tr>
<tr>
<td>3(2H)-Isothiazolone, 2-methyl-</td>
<td>2682-20-4</td>
<td>&lt;1</td>
<td>N/A</td>
</tr>
<tr>
<td>4-Isothiazolin-3-one, 5-chloro-2-methyl-</td>
<td>26172-55-4</td>
<td>&lt;1</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Clean clothing, shoes and leather goods. If skin irritation or a rash occurs, get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause moderate to severe irritation. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Do not direct solid stream of water into burning liquid. Contact with water causes violent frothing and spattering.

Special Protective Equipment and Precautions for Fire-fighters
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective...
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike spilled product to prevent runoff. Contact emergency services and manufacturer/supplier for advice. Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Comply with all applicable health and safety regulations, fire and building codes. Keep out of reach of children. Keep from freezing.

SECTION 8. EXPOSURE CONTROLS/PERSOAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>1 mg/m³</td>
<td>3 mg/m³</td>
<td>TRA</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>25 ppm C</td>
<td>125 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls
General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
- Eye/Face Protection
  - Wear chemical safety goggles and face shield when contact is possible.
- Skin Protection
  - Concentrated product: wear chemical protective clothing e.g. gloves, aprons, boots.
  - Polyvinyl chloride, latex rubber, neoprene rubber.
- Respiratory Protection
  - Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties
- Appearance: Amber liquid.
- Odour: Unscented
- Odour Threshold: Not available
- pH: 1.5 - 2.5
- Melting Point/Freezing Point: Not available (melting); Not available (freezing)
- Initial Boiling Point/Range: > 100 ºC
- Flash Point: Not available
Evaporation Rate: Not available
Flammability (solid, gas): Will not burn.
Upper/Lower Flammability or Explosive Limit: Not applicable (upper); Not applicable (lower)
Vapour Pressure: Not available
Vapour Density (air = 1): Not applicable
Relative Density (water = 1): 1.04
Solubility: Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow): Not available
Auto-ignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available (kinematic)
Other Information: Liquid
Physical State: Liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.
Chemical Stability
Normally stable.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
None known.
Incompatible Materials
None known.
Hazardous Decomposition Products
Corrosive sulfur oxides; very toxic carbon monoxide, carbon dioxide; hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>52-206 mg/L (rat)</td>
<td>2079-2340 mg/kg (rat)</td>
<td>6300-160000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>1530 mg/kg (rat)</td>
<td>2740 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>&gt; 310 mg/m3 (rat) (1-hour exposure)</td>
<td>3700 mg/kg (rat)</td>
<td>8560 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
- If misted, causes irritation of mucous membranes.

Ingestion

Product Identifier: HP-950
SDS No.: Ver. 2 (December 15, 2017)
Date of Preparation: April 29, 2015
May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
No data available on this mixture. No indication from ingredients.

Respiratory and/or Skin Sensitization
(3(2H)-Isothiazolone, 2-methyl-). (4-Isothiazolin-3-one, 5-chloro-2-methyl-) sensitization may occur following exposure to the liquid or vapour.

Carcinogenicity
Not on ACGIH, IARC, NTP and OSHA lists.

Reproductive Toxicity
- Development of Offspring
  No indication from ingredients.
- Sexual Function and Fertility
  No indication from ingredients.
- Effects on or via Lactation
  No indication from ingredients.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>3.5-5 mg/L (96-hour)</td>
<td>4.53 (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>138 mg/L (96-hour)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>8690 mg/L (Pimephales promelas (fathead minnow); 96-hour; flow-through)</td>
<td>3200 mg/L (Daphnia magna (water flea); 48-hour; static)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3(2H)-Isothiazolone, 2-methyl-</td>
<td>&gt; 150 mg/L (96-hour)</td>
<td>0.87 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-Isothiazolin-3-one, 5-chloro-2-methyl-</td>
<td>0.3 mg/L (96-hour)</td>
<td>0.84 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
Consult Transchem Pro Inc. regarding status of ingredients.

USA

Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.

Additional USA Regulatory Lists

California Proposition 65: No listed substances are known to be present.
SARA Title III - Section 313: No listed substances are known to be present.
New Jersey Right To Know: Phosphoric acid (CAS: 7664-38-2); Hexylene glycol (CAS: 107-41-5).

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 1  Flammability - 0  Instability - 0

SDS Prepared By
Technical Group

Date of Preparation
April 29, 2015

Revision Indicators
The following SDS content was changed on December 15, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification; Recommended Use.
SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Skin Contact; Eye Contact.
SECTION 5. FIRE-FIGHTING MEASURES; Specific Hazards Arising from the Chemical; Special Protective Equipment and Precautions for Fire-fighters.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Control Parameters.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; pH.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Skin Corrosion/Irritation; Serious Eye Damage/Irritation; Ingestion; Respiratory and/or Skin Sensitization.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity.
SECTION 15. REGULATORY INFORMATION; Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL); Toxic Substances Control Act (TSCA) Section 8(b).

Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: HP-951
Other Means of Identification: High pH Friction Detergent - Hard Water Tolerant
Recommended Use: Hard water tolerant foaming car wash detergent.
Restrictions on Use: None known.
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (December 15, 2017)
Date of Preparation: March 29, 2016

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A

GHS Label Elements

Signal Word: Warning

Hazard Statement(s):
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 IF eye irritation persists: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Other Hazards: None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>68439-57-6</td>
<td>15-30</td>
<td>Sodium alpha-Olefin Sulfonate</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-hydroxy-, C10-16-alkyl ethers, sodium salts</td>
<td>68585-34-2</td>
<td>5-10</td>
<td>Sodium Lauryl Ether Sulfate</td>
</tr>
</tbody>
</table>

Product Identifier: HP-951
SDS No.: Ver. 2 (December 15, 2017)
Date of Preparation: March 29, 2016
Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Immediately call a Poison Centre or doctor.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is unconscious, is rapidly losing consciousness or is convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause mild irritation. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Do not direct solid stream of water into burning liquid. Contact with water causes violent frothing and spattering. Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; products of incomplete combustion.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Product Identifier: HP-951
SDS No.: Ver. 2 (December 15, 2017)
Date of Preparation: March 29, 2016
Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike spilled product to prevent runoff.
Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Store in an area that is: cool, dry, separate from incompatible materials (see Section 10: Stability and Reactivity). Keep out of reach of children. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate Engineering Controls
General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
- Eye/Face Protection
  - Wear chemical safety goggles and face shield when contact is possible.
- Skin Protection
  - Wear chemical protective clothing e.g. gloves, aprons, boots.
- Respiratory Protection
  - Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties
- Appearance: Clear amber liquid.
- Odour: Mild
- Odour Threshold: Not available
- pH: 11.5 - 12.5
- Melting Point/Freezing Point: Not available (melting); Not available (freezing)
- Initial Boiling Point/Range: > 100 ºC
- Flash Point: Not available
- Evaporation Rate: Not available
- Flammability (solid, gas): Not available
- Upper/Lower Flammability or Explosive Limit: Not applicable (upper); Not applicable (lower)
- Vapour Pressure: Not available
- Vapour Density (air = 1): Not available
- Relative Density (water = 1): 1.04
- Solubility: Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow) Not available
Auto-ignition Temperature Not available
Decomposition Temperature Not available
Viscosity Not available (kinematic)

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials.

Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid), strong reducing agents (e.g. hydrides).

Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 (mg/L)</th>
<th>LD50 (oral) (mg/kg)</th>
<th>LD50 (dermal) (mg/kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>52-206</td>
<td>2079-2340</td>
<td>6300-160000</td>
</tr>
<tr>
<td>Tetrasodium EDTA</td>
<td>&gt; 1-5 (4-hour exposure)</td>
<td>1780</td>
<td></td>
</tr>
<tr>
<td>Imidazolium compounds, 1-[2-(2-carboxyethoxy)ethyl]-1(or 3)-(2-carboxyethyl)-4, 5-dihydro-2-norcoco alkyl, hydroxides, disodium salts</td>
<td>17,100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows very mild irritation.

Serious Eye Damage/Irritation
Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
When misted may cause nose and throat irritation, lung irritation.
If misted, may cause irritation of mucous membranes.

Ingestion
May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.
STOT (Specific Target Organ Toxicity) - Repeated Exposure
No information was located.
Respiratory and/or Skin Sensitization
No information was located.
Carcinogenicity
Not on ACGIH, IARC, NTP and OSHA lists.
Reproductive Toxicity
   Development of Offspring
      Not known to harm the unborn child.
   Sexual Function and Fertility
      Not known to cause effects on sexual function or fertility.
   Effects on or via Lactation
      Not known to cause effects on or via lactation.
Germ Cell Mutagenicity
No information was located.
Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity
Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish (96-hour)</th>
<th>EC50 Crustacea (48-hour)</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>3.5-5 mg/L</td>
<td>4.53 (Daphnia magna)</td>
<td>34-62 mg/L (96-hour)</td>
<td></td>
</tr>
<tr>
<td>Tetrasodium EDTA</td>
<td>3.5-5 mg/L</td>
<td>4.53 (Daphnia magna)</td>
<td>34-62 mg/L (96-hour)</td>
<td></td>
</tr>
</tbody>
</table>

Persistence and Degradability
(Tetrasodium EDTA) By using samples from a river, a ditch and a lake as inocula in the closed bottle test, a biodegradation between 60 and 83% was obtained after 49 days at pH 6.5, whereas between 53 and 72% were obtained after 28 days at pH 8.0.
(Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts) Biodegradable as per OECD 301E tests for ready biodegradability.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

Special Precautions for User
Not applicable
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable
SECTION 15. REGULATORY INFORMATION

Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are listed on the TSCA Inventory.
Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: Potassium hydroxide (CAS: 1310-58-3).
SARA Title III - Section 313: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 1  Flammability - 0  Instability - 0

SDS Prepared By
Technical Group

Date of Preparation
March 29, 2016

Revision Indicators
The following SDS content was changed on December 15, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Eye Contact.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity.
SECTION 15. REGULATORY INFORMATION; Toxic Substances Control Act (TSCA) Section 8(b).

Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
HP-960

SECTION 1. IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Identifier</th>
<th>HP-960</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Means of Identification</td>
<td>Low pH Tri-Foam Conditioner - bubble Gum Scent - Blue</td>
</tr>
<tr>
<td>Recommended Use</td>
<td>Used in triple foam applications in all types of carwash equipment.</td>
</tr>
<tr>
<td>Restrictions on Use</td>
<td>None known.</td>
</tr>
<tr>
<td>Emergency Phone No.</td>
<td>CANUTEC (Canada), 613-996-6666, 24 Hours</td>
</tr>
<tr>
<td></td>
<td>INFOTRAC (U.S.), 1-800-535-5053, 24 Hours</td>
</tr>
<tr>
<td>SDS No.</td>
<td>Ver. 2 (December 5, 2017)</td>
</tr>
<tr>
<td>Date of Preparation</td>
<td>April 29, 2015</td>
</tr>
</tbody>
</table>

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A; Skin sensitization - Category 1

GHS Label Elements

Signal Word: Warning

Hazard Statement(s):
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.

Prevention:
P261 Avoid breathing dust, fume, gas, mist, vapours or spray.
P264 Wash hands and skin thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Other Hazards
None known.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>68439-57-6</td>
<td>10-20</td>
<td>Sodium olefin Sulfonate</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>107-41-5</td>
<td>2-4</td>
<td>N/A</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2</td>
<td>1-2</td>
<td>N/A</td>
</tr>
<tr>
<td>3(2H)-Isothiazolone, 2-methyl-</td>
<td>2682-20-4</td>
<td>&lt;1</td>
<td>N/A</td>
</tr>
<tr>
<td>4-Isothiazolin-3-one, 5-chloro-2-methyl-</td>
<td>26172-55-4</td>
<td>&lt;1</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely. If skin irritation or a rash occurs, get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause moderate to severe irritation. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media
Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Do not direct solid stream of water into burning liquid. Contact with water causes violent frothing and spattering.

Special Protective Equipment and Precautions for Fire-fighters
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

Large spills or leaks: dike spilled product to prevent runoff. Contact emergency services and manufacturer/supplier for advice. Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage

Comply with all applicable health and safety regulations, fire and building codes. Keep out of reach of children. Keep from freezing.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>Ceiling</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td></td>
<td>25 ppm C</td>
<td>125 mg/m3</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>1 mg/m3</td>
<td>3 mg/m3</td>
<td>1 mg/m3</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

- **Eye/Face Protection**
  - Wear chemical safety goggles and face shield when contact is possible.

- **Skin Protection**
  - Concentrated product: wear chemical protective clothing e.g. gloves, aprons, boots.
  - Suitable materials are: polyvinyl chloride, neoprene rubber, latex rubber.

- **Respiratory Protection**
  - Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

- **Appearance**: Blue liquid.

- **Odour**: Bubblegum

- **Odour Threshold**: Not available

- **pH**: 2 - 3

- **Melting Point/Freezing Point**: Not available (melting); Not available (freezing)

- **Initial Boiling Point/Range**: > 100 °C

- **Flash Point**: Not available

- **Evaporation Rate**: Not available
Flammability (solid, gas)  Will not burn.
Upper/Lower Flammability or Explosive Limit  Not applicable (upper); Not applicable (lower)
Vapour Pressure  Not available
Vapour Density (air = 1)  Not applicable
Relative Density (water = 1)  1.04
Solubility  Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow)  Not available
Auto-ignition Temperature  Not available
Decomposition Temperature  Not available
Viscosity  Not available (kinematic)
Other Information
Physical State  Liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.
This is a stable material.
Chemical Stability
Normally stable.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
None known.
Incompatible Materials
None known.
Hazardous Decomposition Products
Corrosive sulfur oxides; very toxic carbon monoxide, carbon dioxide; hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.
Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>52-206 mg/L (rat)</td>
<td>2079-2340 mg/kg (rat)</td>
<td>6300-160000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>&gt; 310 mg/m³ (rat) (1-hour exposure)</td>
<td>3700 mg/kg (rat)</td>
<td>8560 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>1530 mg/kg (rat)</td>
<td>2740 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows mild irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
When misted causes nose and throat irritation, lung irritation.

Ingestion

Product Identifier: HP-960
SDS No.: Ver. 2 (December 5, 2017)
Date of Preparation: April 29, 2015
May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
No data available on this mixture. No indication from ingredients.

Respiratory and/or Skin Sensitization
(3(2H)-Isothiazolone, 2-methyl-). (4-Isothiazolin-3-one, 5-chloro-2-methyl-) sensitization may occur following exposure to the liquid or vapour.

Carcinogenicity
Not on ACGIH, IARC, NTP and OSHA lists.

Reproductive Toxicity
- Development of Offspring
  No indication from ingredients.
- Sexual Function and Fertility
  No indication from ingredients.
- Effects on or via Lactation
  No indication from ingredients.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

Germ Cell Mutagenicity
No information was located.

SECTION 12. ECOLOGICAL INFORMATION
All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity
Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>3.5-5 mg/L (96-hour)</td>
<td>4.53 (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>8690 mg/L (Pimephales promelas (fathead minnow); 96-hour; flow-through)</td>
<td>3200 mg/L (Daphnia magna (water flea); 48-hour; static)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>138 mg/L (96-hour)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3(2H)-Isothiazolone, 2-methyl-</td>
<td>&gt; 150 mg/L (96-hour)</td>
<td>0.87 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-Isothiazolin-3-one, 5-chloro-2-methyl-</td>
<td>0.3 mg/L (96-hour)</td>
<td>0.84 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION
SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
Consult Transchem Pro Inc. regarding status of ingredients.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are listed on the TSCA Inventory.

Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: Phosphoric acid (CAS: 7664-38-2); Hexylene glycol (CAS: 107-41-5).
SARA Title III - Section 313: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 1  Flammability - 0  Instability - 0

SDS Prepared By
Technical Group

Date of Preparation
April 29, 2015

Revision Indicators
The following SDS content was changed on December 05, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Skin Contact; Eye Contact.
SECTION 5. FIRE-FIGHTING MEASURES; Specific Hazards Arising from the Chemical; Special Protective Equipment and Precautions for Fire-fighters.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Control Parameters.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Skin Corrosion/Irritation; Serious Eye Damage/Irritation; Inhalation; Ingestion; Respiratory and/or Skin Sensitization.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity.
SECTION 15. REGULATORY INFORMATION; Toxic Substances Control Act (TSCA) Section 8(b).

Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: HP-970
Other Means of Identification: Low pH Tri-Foam Conditioner - Bubble Gum Scent - Gold
Recommended Use: Used in triple foam applications in all types of carwash equipment.
Restrictions on Use: None known.
Emergency Phone No.: CANUTEC (Canada), 613-996-6666, 24 Hours
INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
SDS No.: Ver. 2 (September 5, 2017)
Date of Preparation: April 29, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A; Skin sensitization - Category 1

GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315          Causes skin irritation.
H319          Causes serious eye irritation.
H317          May cause an allergic skin reaction.
Prevention:
P261          Avoid breathing dust, fume, gas, mist, vapours or spray.
P264          Wash hands and skin thoroughly after handling.
P272          Contaminated work clothing must not be allowed out of the workplace.
P280          Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313    If eye irritation persists: Get medical advice/attention.
P302 + P352    IF ON SKIN: Wash with plenty of water.
P333 + P313    If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364    Take off contaminated clothing and wash it before reuse.
Disposal:
P501          Dispose of contents/container in accordance with local, regional, national and international regulations.
Other Hazards
None known.
### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>68439-57-6</td>
<td>10-20</td>
<td>Sodium olefin Sulfonate</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>107-41-5</td>
<td>2-4</td>
<td>N/A</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2</td>
<td>1-2</td>
<td>N/A</td>
</tr>
<tr>
<td>3(2H)-Isothiazolone, 2-methyl-</td>
<td>2682-20-4</td>
<td>&lt;1</td>
<td>N/A</td>
</tr>
<tr>
<td>4-Isothiazolin-3-one, 5-chloro-2-methyl-</td>
<td>26172-55-4</td>
<td>&lt;1</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Notes**

The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

### SECTION 4. FIRST-AID MEASURES

**First-aid Measures**

**Inhalation**

Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

**Skin Contact**

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely. If skin irritation or a rash occurs, get medical advice/attention.

**Eye Contact**

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

**Ingestion**

Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

**Most Important Symptoms and Effects, Acute and Delayed**

If on skin: may cause moderate to severe irritation. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

**Immediate Medical Attention and Special Treatment**

**Target Organs**

Eyes, skin.

**Special Instructions**

Rinse affected area (skin, eyes) thoroughly with water.

**Medical Conditions Aggravated by Exposure**

None known.

### SECTION 5. FIRE-FIGHTING MEASURES

**Extinguishing Media**

Suitable Extinguishing Media

- Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

None known.

**Specific Hazards Arising from the Chemical**

Do not direct solid stream of water into burning liquid. Contact with water causes violent frothing and spattering.

**Special Protective Equipment and Precautions for Fire-fighters**

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

Large spills or leaks: dike spilled product to prevent runoff. Contact emergency services and manufacturer/supplier for advice. Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage

Comply with all applicable health and safety regulations, fire and building codes. Keep out of reach of children. Keep from freezing.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td></td>
<td>25 ppm C</td>
<td>125 mg/m3</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>1 mg/m3</td>
<td>3 mg/m3</td>
<td>1 mg/m3</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Concentrated product: wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: polyvinyl chloride, neoprene rubber, latex rubber.

Respiratory Protection

Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance           Yellow liquid.
Odour                Bubblegum
Odour Threshold      Not available
pH                   2.5 - 3.5
Melting Point/Freezing Point Not available (melting); Not available (freezing)
Initial Boiling Point/Range > 100 °C
Flash Point          Not available
Evaporation Rate     Not available

Product Identifier: HP-970
SDS No.: Ver. 2 (September 5, 2017)
Date of Preparation: April 29, 2015
Flammability (solid, gas) Will not burn.
Upper/Lower Flammability or Explosive Limit Not applicable (upper); Not applicable (lower)
Vapour Pressure Not available
Vapour Density (air = 1) Not applicable
Relative Density (water = 1) 1.04
Solubility Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow) Not available
Auto-ignition Temperature Not available
Decomposition Temperature Not available
Viscosity Not available (kinematic)
Other Information
Physical State Liquid

SECTION 10. STABILITY AND REACTIVITY
Reactivity
Not reactive.
This is a stable material.
Chemical Stability
Normally stable.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
None known.
Incompatible Materials
None known.
Hazardous Decomposition Products
Corrosive sulfur oxides; very toxic carbon monoxide, carbon dioxide; hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION
Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.
Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>52-206 mg/L (rat)</td>
<td>2079-2340 mg/kg (rat)</td>
<td>6300-160000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>&gt; 310 mg/m3 (rat) (1-hour exposure)</td>
<td>3700 mg/kg (rat)</td>
<td>8560 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>1530 mg/kg (rat)</td>
<td>2740 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows mild irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure
Inhalation
When misted causes nose and throat irritation, lung irritation.
Ingestion

Product Identifier: HP-970
SDS No.: Ver. 2 (September 5, 2017)
Date of Preparation: April 29, 2015
May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
No data available on this mixture. No indication from ingredients.

Respiratory and/or Skin Sensitization
(3(2H)-Isothiazolone, 2-methyl-). (4-Isothiazolin-3-one, 5-chloro-2-methyl-) sensitization may occur following exposure to the liquid or vapour.

Carcinogenicity
Not on ACGIH, IARC, NTP and OSHA lists.

Reproductive Toxicity
  Development of Offspring
  No indication from ingredients.
  Sexual Function and Fertility
  No indication from ingredients.
  Effects on or via Lactation
  No indication from ingredients.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>3.5-5 mg/L (96-hour)</td>
<td>4.53 (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>8690 mg/L (Pimephales promelas (fathead minnow); 96-hour; flow-through)</td>
<td>3200 mg/L (Daphnia magna (water flea); 48-hour; static)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>138 mg/L (96-hour)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3(2H)-Isothiazolone, 2-methyl-</td>
<td>&gt; 150 mg/L (96-hour)</td>
<td>0.87 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-Isothiazolin-3-one, 5-chloro-2-methyl-</td>
<td>0.3 mg/L (96-hour)</td>
<td>0.84 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

Special Precautions
for User
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
Consult Transchem Pro Inc. regarding status of ingredients.
USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are listed on the TSCA Inventory.
Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: Phosphoric acid (CAS: 7664-38-2); Hexylene glycol (CAS: 107-41-5).
SARA Title III - Section 313: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION
NFPA Rating
Health - 1   Flammability - 0   Instability - 0
SDS Prepared By  Technical Group
Date of Preparation  April 29, 2015
Revision Indicators
The following SDS content was changed on December 05, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Skin Contact; Eye Contact.
SECTION 5. FIRE-FIGHTING MEASURES; Specific Hazards Arising from the Chemical; Special Protective Equipment and Precautions for Fire-fighters.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Control Parameters.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density; pH.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Skin Corrosion/Irritation; Serious Eye Damage/Irritation; Inhalation; Ingestion; Respiratory and/or Skin Sensitization.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity.
SECTION 15. REGULATORY INFORMATION; Toxic Substances Control Act (TSCA) Section 8(b).

Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier          HP-980
Other Means of Identification Low pH Tri-Foam Conditioner - Bubble Gum Scent - Red
Recommended Use Used in triple foam applications in all types of carwash equipment.
Restrictions on Use None known.
Emergency Phone No. CANUTEC (Canada), 613-996-6666, 24 Hours
                                             INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
SDS No.                      Ver. 2 (December 5, 2017)
Date of Preparation         April 29, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A; Skin sensitization - Category 1
GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315  Causes skin irritation.
H319  Causes serious eye irritation.
H317  May cause an allergic skin reaction.
Prevention:
P261  Avoid breathing dust, fume, gas, mist, vapours or spray.
P264  Wash hands and skin thoroughly after handling.
P272  Contaminated work clothing must not be allowed out of the workplace.
P280  Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313  If eye irritation persists: Get medical advice/attention.
P302 + P352  IF ON SKIN: Wash with plenty of water.
P333 + P313  If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364  Take off contaminated clothing and wash it before reuse.
Disposal:
P501  Dispose of contents/container in accordance with local, regional, national and international regulations.
Other Hazards
None known.
### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>68439-57-6</td>
<td>10-20</td>
<td>Sodium olefin Sulfonate</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>107-41-5</td>
<td>2-4</td>
<td>N/A</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2</td>
<td>1-2</td>
<td>N/A</td>
</tr>
<tr>
<td>3(2H)-Isothiazolone, 2-methyl-</td>
<td>2682-20-4</td>
<td>&lt;1</td>
<td>N/A</td>
</tr>
<tr>
<td>4-Isothiazolin-3-one, 5-chloro-2-methyl-</td>
<td>26172-55-4</td>
<td>&lt;1</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Notes**  
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

### SECTION 4. FIRST-AID MEASURES

**First-aid Measures**

**Inhalation**  
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

**Skin Contact**  
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely. If skin irritation or a rash occurs, get medical advice/attention.

**Eye Contact**  
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

**Ingestion**  
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

**Most Important Symptoms and Effects, Acute and Delayed**  
If on skin: may cause moderate to severe irritation. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

**Immediate Medical Attention and Special Treatment**

**Target Organs**  
Eyes, skin.

**Special Instructions**  
Rinse affected area (skin, eyes) thoroughly with water.

**Medical Conditions Aggravated by Exposure**  
None known.

### SECTION 5. FIRE-FIGHTING MEASURES

**Extinguishing Media**

**Suitable Extinguishing Media**  
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

**Unsuitable Extinguishing Media**  
None known.

**Specific Hazards Arising from the Chemical**  
Do not direct solid stream of water into burning liquid. Contact with water causes violent frothing and spattering.

**Special Protective Equipment and Precautions for Fire-fighters**  
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

Large spills or leaks: dike spilled product to prevent runoff. Contact emergency services and manufacturer/supplier for advice. Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage

Comply with all applicable health and safety regulations, fire and building codes. Keep out of reach of children. Keep from freezing.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
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<tbody>
<tr>
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<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td></td>
<td>25 ppm C</td>
<td>125 mg/m³</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>1 mg/m³</td>
<td>3 mg/m³</td>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

- Eye/Face Protection
  - Wear chemical safety goggles and face shield when contact is possible.

- Skin Protection
  - Concentrated product: wear chemical protective clothing e.g. gloves, aprons, boots.
  - Suitable materials are: polyvinyl chloride, neoprene rubber, latex rubber.

- Respiratory Protection
  - Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

- Appearance: Red liquid.
- Odour: Bubblegum
- Odour Threshold: Not available
- pH: 2 - 3
- Melting Point/Freezing Point: Not available (melting); Not available (freezing)
- Initial Boiling Point/Range: > 100 ºC
- Flash Point: Not available
- Evaporation Rate: Not available
SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive. This is a stable material.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
None known.

Incompatible Materials
None known.

Hazardous Decomposition Products
Corrosive sulfur oxides; very toxic carbon monoxide, carbon dioxide; hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
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<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and</td>
<td>52-206 mg/L (rat)</td>
<td>2079-2340 mg/kg (rat)</td>
<td>6300-160000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>C14-16-alkene, sodium salts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>&gt; 310 mg/m3 (rat) (1-hour exposure)</td>
<td>3700 mg/kg (rat)</td>
<td>8560 mg/kg (rabbit)</td>
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<tr>
<td>Phosphoric Acid</td>
<td>1530 mg/kg (rat)</td>
<td>2740 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows mild irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
When misted causes nose and throat irritation, lung irritation.

Ingestion
May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
No data available on this mixture. No indication from ingredients.

Respiratory and/or Skin Sensitization
(3(2H)-Isothiazolone, 2-methyl-). (4-Isothiazolin-3-one, 5-chloro-2-methyl-) sensitization may occur following exposure to the liquid or vapour.

Carcinogenicity
Not on ACGIH, IARC, NTP and OSHA lists.

Reproductive Toxicity

Development of Offspring
No indication from ingredients.

Sexual Function and Fertility
No indication from ingredients.

Effects on or via Lactation
No indication from ingredients.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity
Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
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<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>3.5-5 mg/L (96-hour)</td>
<td>4.53 (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>8690 mg/L (Pimephales promelas (fathead minnow); 96-hour; flow-through)</td>
<td>3200 mg/L (Daphnia magna (water flea); 48-hour; static)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>138 mg/L (96-hour)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3(2H)-Isothiazolone, 2-methyl-</td>
<td>&gt; 150 mg/L (96-hour)</td>
<td>0.87 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-Isothiazolin-3-one, 5-chloro-2-methyl-</td>
<td>0.3 mg/L (96-hour)</td>
<td>0.84 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
Consult Transchem Pro Inc. regarding status of ingredients.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are listed on the TSCA Inventory.
Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: Phosphoric acid (CAS: 7664-38-2); Hexylene glycol (CAS: 107-41-5).
SARA Title III - Section 313: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 1  Flammability - 0  Instability - 0

SDS Prepared By Technical Group
Date of Preparation April 29, 2015

Revision Indicators
The following SDS content was changed on December 05, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Control Parameters.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Skin Corrosion/Irritation; Serious Eye Damage/Irritation; Inhalation; Ingestion; Respiratory and/or Skin Sensitization.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity.
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PL-12

SECTION 1. IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Identifier</th>
<th>PL-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Means of Identification</td>
<td>High pH Presoak - Unscented - Orange</td>
</tr>
<tr>
<td>Recommended Use</td>
<td>Used as presoak in touchless carwash applications.</td>
</tr>
<tr>
<td>Restrictions on Use</td>
<td>None known.</td>
</tr>
<tr>
<td>Manufacturer / Supplier</td>
<td>Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, <a href="http://www.transchem.com">www.transchem.com</a></td>
</tr>
<tr>
<td>Emergency Phone No.</td>
<td>CANUTEC (Canada), 613-996-6666, 24 Hours</td>
</tr>
<tr>
<td></td>
<td>INFOTRAC (U.S.), 1-800-535-5053, 24 Hours</td>
</tr>
<tr>
<td>SDS No.</td>
<td>Ver. 2 (July 4, 2017)</td>
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<tr>
<td>Date of Preparation</td>
<td>June 01, 2015</td>
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</table>

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 1C; Serious eye damage/eye irritation - Category 1

GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
Prevention:
P260 Do not breathe dusts or mists.
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE/doctor.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Other Hazards
None known.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>64-02-8</td>
<td>3-7</td>
<td>N/A</td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>6834-92-0</td>
<td>3-7</td>
<td>N/A</td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>68439-46-3</td>
<td>3-7</td>
<td>Alcohol Exthoxylate</td>
</tr>
<tr>
<td>Alkyl Dimethylamine Oxide</td>
<td>1643-20-5</td>
<td>1-5</td>
<td>N/A</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>1-3</td>
<td>Caustic Soda</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>1310-58-3</td>
<td>1-3</td>
<td>Caustic Potash</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. If skin irritation occurs get medical advice/attention. Clean clothing, shoes and leather goods.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Immediately call a Poison Centre or doctor.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink one glass of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause moderate to severe irritation. If in eyes: may cause moderate to severe irritation. Symptoms include pain, redness, and swelling.

Immediate Medical Attention and Special Treatment
Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.
Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Does not burn.

Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
Concentrated product: it is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike spilled product to prevent runoff.
Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Store in closed container. Separate from incompatible materials (see Section 10: Stability and Reactivity). Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td>2 mg/m3 C</td>
<td>2 mg/m3</td>
<td>Ceiling</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 mg/m3</td>
<td></td>
<td>TWA</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls
General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
Eye/Face Protection
- Wear chemical safety goggles and face shield when contact is possible.

Skin Protection
- Wear chemical protective clothing e.g. gloves, aprons, boots.
- Suitable materials are: polyvinyl chloride, latex rubber, neoprene rubber.

Respiratory Protection
- Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Orange liquid.</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>13.0 - 13.6</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not available (melting); Not available (freezing)</td>
</tr>
<tr>
<td>Initial Boiling Point/Range</td>
<td>100 °C (212 °F)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Product Identifier: PL-12
SDS No.: Ver. 2 (July 4, 2017)
Date of Preparation: June 01, 2015
Evaporation Rate: Not available
Flammability (solid, gas): Not available
Upper/Lower Flammability or Explosive Limit: Not applicable (upper); Not applicable (lower)
Vapour Pressure: Not applicable
Vapour Density (air = 1): ~ 1
Relative Density (water = 1): 1.11
Solubility: Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow): Not available
Auto-ignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available (kinematic)
Other Information:
Physical State: Liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity
None known.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials.

Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid).

Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>&gt; 1-5 mg/L (rat) (4-hour exposure)</td>
<td>1780 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>1153 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>500 mg/kg (rabbit)</td>
<td>1350 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>1378 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td>Alkyl Dimethylamine Oxide</td>
<td>2700 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>365 mg/kg (rat)</td>
<td>&gt; 1260 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. May cause reddening and swelling of tissues around the eyes.
STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
Can cause nose, throat and respiratory tract irritation, coughing and headache.

Ingestion
Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Symptoms may include dry, red, cracked skin (dermatitis).
Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity
Contains 2-butoxyethanol. (2-butoxyethanol) IARC: Group 3 – Not classifiable as to its carcinogenicity to humans. ACGIH®: A3 – Confirmed animal carcinogen.

Reproductive Toxicity

Development of Offspring
No indication from ingredients.

Sexual Function and Fertility
No indication from ingredients.

Effects on or via Lactation
No indication from ingredients.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>34-62 mg/L (Lepomis macrochirus (bluegill); 96-hour; static)</td>
<td>113 mg/L (Daphnia magna (water flea); 48-hour; static)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>210 mg/L (96-hour)</td>
<td>216 mg/L (96-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>45.4 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour; static)</td>
<td>100 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>11 mg/L (Pimephales promelas (fathead minnow); 96-hour; fresh water)</td>
<td>5.3 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>80 mg/L (96-hour)</td>
<td>56 mg/L (48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
</table>

Product Identifier: PL-12
SDS No.: Ver. 2 (July 4, 2017)
Date of Preparation: June 01, 2015
Persistence and Degradability

(Tetrasodium EDTA) By using samples from a river, a ditch and a lake as inocula in the closed bottle test, a biodegradation between 60 and 83% was obtained after 49 days at pH 6.5, whereas between 53 and 72% were obtained after 28 days at pH 8.0.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Regulation</th>
<th>UN No.</th>
<th>Proper Shipping Name</th>
<th>Transport Hazard Class(es)</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>US DOT</td>
<td>3266</td>
<td>CORROSIVE LIQUID, Basic, Inorganic (Sodium Metasilicate, Sodium Hydroxide)</td>
<td>Class 8</td>
<td>III</td>
</tr>
<tr>
<td>Canadian TDG</td>
<td>3266</td>
<td>CORROSIVE LIQUID, Basic, Inorganic (Sodium Metasilicate, Sodium Hydroxide)</td>
<td>Class 8</td>
<td>III</td>
</tr>
</tbody>
</table>

Special Precautions

Not applicable for User

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL/NDSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are commercially available and presumed to be listed by manufacturer.

Additional USA Regulatory Lists

California Proposition 65: No listed substances are known to be present.

New Jersey Right To Know: Sodium Hydroxide (CAS: 1310-73-2); Potassium hydroxide (CAS: 1310-58-3); 2-butoxyethanol (CAS: 111-76-2).

SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).

SECTION 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA Rating</th>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDS Prepared By</td>
<td>Technical Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date of Preparation</td>
<td>June 01, 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revision Indicators</td>
<td>The following SDS content was changed on July 04, 2017:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 1. IDENTIFICATION; Other Means of Identification.

SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.

SECTION 4. FIRST-AID MEASURES; Ingestion.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Control Parameters; Respiratory Protection.

SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Inhalation; Ingestion; Carcinogenicity.

SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.

Product Identifier: PL-12

SDS No.: Ver. 2 (July 4, 2017)

Date of Preparation: June 01, 2015
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: PL-14
Other Means of Identification: Alkaline Presoak
Recommended Use: Used as presoak in touchless carwash applications.
Restrictions on Use: None known.
Manufacturer / Supplier: Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, www.transchem.com
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (July 11, 2017)
Date of Preparation: April 29, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 1

GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H315 Causes skin irritation.
H318 Causes serious eye damage.
Precautionary Statement(s):
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves.
P280 Wear eye protection/face protection.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE/doctor.

Other Hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surfactant Blend</td>
<td>Proprietary</td>
<td>5-8</td>
<td>N/A</td>
</tr>
<tr>
<td>Tetrasodium EDTA</td>
<td>64-02-8</td>
<td>1-5</td>
<td>Ethylenediaminetetraacetic acid</td>
</tr>
</tbody>
</table>

Product Identifier: PL-14
SDS No.: Ver. 2 (July 11, 2017)
Date of Preparation: April 29, 2015
Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Completely decontaminate clothing, shoes, and leather goods before reuse or discard. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Immediately call a Poison Centre or doctor.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink one glass of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause moderate to severe irritation. Repeated or prolonged exposure can irritate the skin. Symptoms include pain, redness, and swelling. If in eyes: may cause moderate to severe irritation. Symptoms include pain, redness, and swelling.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Hazardous combustion products: oxides of carbon and nitrogen, and products of incomplete combustion.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.
Environmental Precautions
Concentrated product: it is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up
Small spills or leaks: review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike spilled product to prevent runoff. Contact emergency services and manufacturer/supplier for advice. Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Store in closed container. Separate from incompatible materials (see Section 10: Stability and Reactivity). Comply with all applicable health and safety regulations, fire and building codes. Keep out of reach of children.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters
Not available.

Appropriate Engineering Controls
General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
Eye/Face Protection
Wear chemical safety goggles and face shield when contact is possible.

Skin Protection
Wear chemical protective clothing e.g. gloves, aprons, boots.
Polyvinyl chloride, neoprene rubber, latex rubber.

Respiratory Protection
Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance
Blue liquid.

Odour
Floral

Odour Threshold
Not available

pH
13.0 - 13.6

Melting Point/Freezing Point
Not available (melting); Not available (freezing)

Initial Boiling Point/Range
Not available

Flash Point
Not available

Evaporation Rate
Not available

Flammability (solid, gas)
Will not burn.

Upper/Lower Flammability or Explosive Limit
Not applicable (upper); Not applicable (lower)

Vapour Pressure
Not applicable

Vapour Density (air = 1)
< 1

Relative Density (water = 1)
1.07

Solubility
Soluble in water; Not available (in other liquids)
SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials.

Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid).

Hazardous Decomposition Products
Thermal decomposition: very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>&gt; 1-5 mg/L (rat) (4-hour exposure)</td>
<td>1780 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td></td>
<td>1153 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td></td>
<td>500 mg/kg (rabbit)</td>
<td>1350 mg/kg (rabbit)</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat) (4-hour exposure)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Contact can cause moderate to high irritation.

Serious Eye Damage/Irritation
Contact can cause severe irritation, reddening, and swelling of tissues around the eyes. Contact may cause chemical burns.

STOT (Specific Target Organ Toxicity) - Single Exposure

- Inhalation
  Can cause nose, throat and respiratory tract irritation, coughing and headache.
- Ingestion
  May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Symptoms may include dry, red, cracked skin (dermatitis).

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity

Product Identifier: PL-14
SDS No.: Ver. 2 (July 11, 2017)
Date of Preparation: April 29, 2015
Reproductive Toxicity
- Development of Offspring
  - No indication from ingredients.
- Sexual Function and Fertility
  - No indication from ingredients.
- Effects on or via Lactation
  - No indication from ingredients.

Germ Cell Mutagenicity
- No information was located.

Interactive Effects
- No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>34-62 mg/L</td>
<td>113 mg/L</td>
<td>(Lepomis macrochirus (bluegill); 96-hour; static)</td>
<td></td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>210 mg/L (96-hour)</td>
<td>216 mg/L</td>
<td>(96-hour)</td>
<td></td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>45.4 mg/L</td>
<td>100 mg/L</td>
<td>(Oncorhynchus mykiss (rainbow trout); 96-hour; static)</td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L</td>
<td>1550 mg/L</td>
<td>(Lepomis macrochirus (bluegill); 96-hour)</td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>&gt; 100 mg/L</td>
<td>&gt; 100 mg/L</td>
<td>(21-day; semi-static)</td>
<td></td>
</tr>
</tbody>
</table>

Persistence and Degradability

(Tetrasodium EDTA) By using samples from a river, a ditch and a lake as inocula in the closed bottle test, a biodegradation between 60 and 89% was obtained after 49 days at pH 6.5, whereas between 53 and 72% were obtained after 28 days at pH 8.0.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

Special Precautions

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL/NDSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are commercially available and presumed to be listed by manufacturer.

Additional USA Regulatory Lists

SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: Sodium Hydroxide (CAS: 1310-73-2); 2-butoxyethanol (CAS: 111-76-2).

SECTION 16. OTHER INFORMATION

NFPA Rating

Health - 2  Flammability - 0  Instability - 0

SDS Prepared By

Technical Group

Date of Preparation

April 29, 2015

Revision Indicators

The following SDS content was changed on July 11, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Inhalation.
SECTION 5. FIRE-FIGHTING MEASURES; Special Protective Equipment and Precautions for Fire-fighters.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Control Parameters; Skin Protection; Respiratory Protection.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density; pH.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Ingestion; STOT (Specific Target Organ Toxicity) - Repeated Exposure; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.
SECTION 15. REGULATORY INFORMATION; Toxic Substances Control Act (TSCA) Section 8(b).

Disclaimer

The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: PL-21LPH
Other Means of Identification: Low pH Foaming Detergent
Recommended Use: Detergent for touchless carwash.
Restrictions on Use: None known.
Manufacturer / Supplier: Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, www.transchem.com
Emergency Phone No.: CANUTEC (Canada), 613-996-6666, 24 Hours
INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
SDS No.: Ver. 2 (July 19, 2017)
Date of Preparation: July 30, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A; Skin sensitization - Category 1

GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
Prevention:
P261 Avoid breathing dust, fume, gas, mist, vapours or spray.
P264 Wash hands and skin thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves.
P280 Wear eye protection/face protection.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Other Hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Contains no hazardous ingredients.
Contains no hazardous ingredients.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium olefin Sulfonate</td>
<td>68439-57-6</td>
<td>10-20</td>
<td>N/A</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>107-41-5</td>
<td>2-4</td>
<td>N/A</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2</td>
<td>1-2</td>
<td>N/A</td>
</tr>
<tr>
<td>3(2H)-Isothiazolone, 2-methyl-</td>
<td>2682-20-4</td>
<td>&lt;1</td>
<td>N/A</td>
</tr>
<tr>
<td>4-Isothiazolin-3-one, 5-chloro-2-methyl-</td>
<td>26172-55-4</td>
<td>&lt;1</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor.

Skin Contact
Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). If skin irritation or a rash occurs, get medical advice/attention. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

Ingestion
Rinse mouth with water. Do not induce vomiting. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause mild irritation. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
- Eyes, skin.

Special Instructions
- Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
- Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Contact with water causes violent frothing and spattering.

Special Protective Equipment and Precautions for Fire-fighters
Do not direct solid stream of water into burning liquid.
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.
**SECTION 6. ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment, and Emergency Procedures**

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

**Environmental Precautions**

It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

**Methods and Materials for Containment and Cleaning Up**

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

Large spills or leaks: dike spilled product to prevent runoff. Contact emergency services and manufacturer/supplier for advice. Review Section 13 (Disposal Considerations) of this safety data sheet.

**Other Information**

Report spills to local health, safety and environmental authorities, as required.

**SECTION 7. HANDLING AND STORAGE**

**Precautions for Safe Handling**

Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

**Conditions for Safe Storage**

Comply with all applicable health and safety regulations, fire and building codes. Store in a cool, dry place. Keep out of reach of children. Keep from freezing.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control Parameters**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>1 mg/m3</td>
<td>3 mg/m3</td>
<td>1 mg/m3</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>25 ppm C</td>
<td></td>
<td>125 mg/m3</td>
</tr>
</tbody>
</table>

**Appropriate Engineering Controls**

General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

**Individual Protection Measures**

- **Eye/Face Protection**
  - Wear chemical safety goggles and face shield when contact is possible.

- **Skin Protection**
  - Concentrated product: use impervious (rubber, nitrile) gloves.

- **Respiratory Protection**
  - Not normally required if product is used as directed.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Basic Physical and Chemical Properties**

- **Appearance**: Amber liquid.
- **Odour**: Unscented
- **Odour Threshold**: Not available
- **pH**: 1.5 - 2.5
- **Melting Point/Freezing Point**: Not available (melting); Not available (freezing)
- **Initial Boiling Point/Range**: > 100 ºC
- **Flash Point**: Not available
- **Evaporation Rate**: Not available
- **Flammability (solid, gas)**: Will not burn.
SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.
Chemical Stability
Normally stable.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
None known.
Incompatible Materials
None known.
Hazardous Decomposition Products
Corrosive sulfur oxides; very toxic carbon monoxide, carbon dioxide; hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium olefin Sulfonate</td>
<td>52-206 mg/L (rat)</td>
<td>2079-2340 mg/kg (rat)</td>
<td>6300-160000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>1530 mg/kg (rat)</td>
<td>2740 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>&gt; 310 mg/m3 (rat) (1-hour exposure)</td>
<td>3700 mg/kg (rat)</td>
<td>8560 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation
Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
If misted, causes irritation of mucous membranes.

Ingestion
May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard

Product Identifier: PL-21LPH
SDS No.: Ver. 2 (July 19, 2017)
Date of Preparation: July 30, 2015
Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
No information was located.

Respiratory and/or Skin Sensitization
(4-Isothiazolin-3-one, 5-chloro-2-methyl-). (3(2H)-Isothiazolone, 2-methyl-) sensitization may occur following exposure to the liquid or vapour.

Carcinogenicity
No components listed by IARC, ACGIH and NTP.

Reproductive Toxicity
- Development of Offspring
  No indication from ingredients.
- Sexual Function and Fertility
  No indication from ingredients.
- Effects on or via Lactation
  No indication from ingredients.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium olefin Sulfonate</td>
<td>3.5-5 mg/L (96-hour)</td>
<td>4.53 (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>138 mg/L (96-hour)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3(2H)-Isothiazolone, 2-methyl-</td>
<td>&gt; 150 mg/L (96-hour)</td>
<td>0.87 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-Isothiazolin-3-one, 5-chloro-2-methyl-</td>
<td>0.3 mg/L (96-hour)</td>
<td>0.84 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>8690 mg/L (Pimephales promelas (fathead minnow); 96-hour; flow-through)</td>
<td>3200 mg/L (Daphnia magna (water flea); 48-hour; static)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION


Special Precautions
for User
Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada
- Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
  All ingredients are listed on the DSL/NDSL.

USA
- Toxic Substances Control Act (TSCA) Section 8(b)
  All ingredients are commercially available and presumed to be listed by manufacturer.
- Additional USA Regulatory Lists
  - California Proposition 65: No listed substances are known to be present.
  - SARA Title III - Section 313: No listed substances are known to be present.
  - New Jersey Right To Know: Phosphoric acid (CAS: 7664-38-2); Hexylene glycol (CAS: 107-41-5).

SECTION 16. OTHER INFORMATION

NFPA Rating: Health - 0  Flammability - 0  Instability - 0
SDS Prepared By: Technical Group
Date of Preparation: July 30, 2015
Revision Indicators: The following SDS content was changed on July 19, 2017:
- SECTION 1. IDENTIFICATION; Other Means of Identification.
- SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
- SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
- SECTION 4. FIRST-AID MEASURES; Skin Contact.
- SECTION 5. FIRE-FIGHTING MEASURES; Specific Hazards Arising from the Chemical.
- SECTION 6. ACCIDENTAL RELEASE MEASURES; Environmental Precautions; Methods and Materials for Containment and Cleaning up.
- SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Control Parameters.
- SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; pH.
- SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Skin Corrosion/Irritation; Serious Eye Damage/Irritation; Ingestion; STOT (Specific Target Organ Toxicity) - Repeated Exposure; Respiratory and/or Skin Sensitization.
- SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity.
- SECTION 15. REGULATORY INFORMATION; Toxic Substances Control Act (TSCA) Section 8(b).

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PL-22

SECTION 1. IDENTIFICATION
Product Identifier: PL-22
Other Means of Identification: Foaming Detergent
Recommended Use: Hard water tolerant foaming car wash detergent.
Restrictions on Use: None known.
Manufacturer / Supplier: Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, www.transchem.com
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (July 19, 2017)
Date of Preparation: January 29, 2016

SECTION 2. HAZARDS IDENTIFICATION
GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A
GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315 Causes skin irritation.
H319 Causes serious eye irritation.
Precautionary Statement(s):
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves.
P280 Wear eye protection/face protection.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P332 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
Other Hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>68439-57-6</td>
<td>15-30</td>
<td>Sodium alpha-olefin sulfonate</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), alpha-sulfo- omega</td>
<td>68585-34-2</td>
<td>5-10</td>
<td>Sodium lauryl ether sulfate</td>
</tr>
</tbody>
</table>
-hydroxy-, C10-16-alkyl ethers, sodium salts

Tetrasodium EDTA 64-02-8 2-4 Ethylenediaminetetraacetic acid

Imidazolium compounds,
1-[2-(2-carboxyethoxy)ethyl]-1(or
3)-[2-carboxyethyl]-4,5-dihydro-2-norcoco alkyl,
hyroxides, disodium salts 68604-71-7 2-4 N/A

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Immediately call a Poison Centre or doctor.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

Ingestion
Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Never give anything by mouth if victim is unconscious, is rapidly losing consciousness or is convulsing.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause mild irritation. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs

Eyes, skin.

Special Instructions

Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure

None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Chemical

Do not direct solid stream of water into burning liquid. Contact with water causes violent frothing and spattering. Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; products of incomplete combustion.

Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike spilled product to prevent runoff.
Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage

Store in an area that is: cool, dry, separate from incompatible materials (see Section 10: Stability and Reactivity). Keep out of reach of children. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate Engineering Controls

General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Respiratory Protection

Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear amber liquid.</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>11.5 - 12.5</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not available (melting); Not available (freezing)</td>
</tr>
<tr>
<td>Initial Boiling Point/Range</td>
<td>&gt; 100 ºC</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper/Lower Flammability or</td>
<td>Not applicable (upper); Not applicable (lower)</td>
</tr>
<tr>
<td>Explosive Limit</td>
<td></td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour Density (air = 1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative Density (water = 1)</td>
<td>1.04</td>
</tr>
</tbody>
</table>

Product Identifier: PL-22
SDS No.: Ver. 2 (July 19, 2017)
Date of Preparation: January 29, 2016
Solubility: Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow): Not available
Auto-ignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available (kinematic)

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.
Chemical Stability
Normally stable.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
Incompatible materials.
Incompatibility Materials
Strong oxidizing agents (e.g. perchloric acid), strong reducing agents (e.g. hydrides).
Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>52-206 mg/L (rat)</td>
<td>2079-2340 mg/kg (rat)</td>
<td>6300-160000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Tetrasodium EDTA</td>
<td>&gt; 1-5 mg/L (rat) (4-hour exposure)</td>
<td>1780 mg/kg (rat)</td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows very mild irritation.

Serious Eye Damage/Irritation
Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure
Inhalation
When misted may cause nose and throat irritation, lung irritation.
If misted, may cause irritation of mucous membranes.
Ingestion
May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.
STOT (Specific Target Organ Toxicity) - Repeated Exposure
No information was located.

Respiratory and/or Skin Sensitization

Product Identifier: PL-22
SDS No.: Ver. 2 (July 19, 2017)
Date of Preparation: January 29, 2016
Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity
No components listed by IARC, ACGIH and NTP.

Reproductive Toxicity
  Development of Offspring
  Not known to harm the unborn child.
  Sexual Function and Fertility
  Not known to cause effects on sexual function or fertility.
  Effects on or via Lactation
  Not known to cause effects on or via lactation.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION
All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity
  Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>3.5-5 mg/L (96-hour)</td>
<td>4.53 (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tetrasodium EDTA</td>
<td>34-62 mg/L (Lepomis macrochirus (bluegill); 96-hour; static)</td>
<td>113 mg/L (Daphnia magna (water flea); 48-hour; static)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and Degradability
(Tetrasodium EDTA) By using samples from a river, a ditch and a lake as inocula in the closed bottle test, a biodegradation between 60 and 83% was obtained after 49 days at pH 6.5, whereas between 53 and 72% were obtained after 28 days at pH 8.0. (Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts) Biodegradable as per OECD 301E tests for ready biodegradability.

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Special Precautions for User</th>
<th>Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
Canada
  Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are listed on the TSCA Inventory.
Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: No listed substances are known to be present.
SARA Title III - Section 313: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating Health - 1 Flammability - 0 Instability - 0
SDS Prepared By Technical Group
Date of Preparation January 29, 2016
Revision Indicators The following SDS content was changed on July 19, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity.

Disclaimer The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: PL-40
Other Means of Identification: Tire & Wheel Cleaner
Recommended Use: Concentrated detergent for cleaning tires and wheels.
Restrictions on Use: None known.
Manufacturer / Supplier: Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, www.transchem.com
Emergency Phone No. INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (July 28, 2017)
Date of Preparation: July 21, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 1C; Serious eye damage/eye irritation - Category 1

GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
Prevention:
P260 Do not breathe dusts or mists.
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE/doctor.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Other Hazards
None known.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>64-02-8</td>
<td>3-7</td>
<td>Ethylenediaminetetraacetic acid</td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>6834-92-0</td>
<td>3-7</td>
<td>N/A</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>2-5</td>
<td>Ethylene Glycol Monobutyl Ether, Butyl Cellosolve</td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>68439-46-3</td>
<td>2-5</td>
<td>Alcohol ethoxylate</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Immediately call a Poison Centre or doctor.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: causes moderate to severe irritation. Repeated or prolonged exposure can irritate the skin. Symptoms include pain, redness, and swelling. If in eyes: causes moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Does not burn.

Special Protective Equipment and Precautions for Fire-fighters
No special precautions are necessary. Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
Concentrated product: it is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike spilled product to prevent runoff.
Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Store in an area that is: cool, dry, separate from incompatible materials (see Section 10: Stability and Reactivity). Store in closed container. Keep out of reach of children. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td>20 ppm C</td>
<td>50 ppm</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls
General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
- **Eye/Face Protection**
- Wear chemical safety goggles.
- **Skin Protection**
- Wear chemical protective clothing e.g. gloves, aprons, boots.
- **Respiratory Protection**
- Polyvinyl chloride, latex rubber, neoprene rubber.
- Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties
- **Appearance**
  - Green liquid.
- **Odour**
  - Mild
- **Odour Threshold**
  - Not available
- **pH**
  - 12.5 - 13.5
- **Melting Point/Freezing Point**
  - Not available (melting); Not available (freezing)
- **Initial Boiling Point/Range**
  - Not available
Partition Coefficient, n-Octanol/Water (Log Kow) Not available
Vapour Pressure Not applicable
Vapour Density (air = 1) Not available
Relative Density (water = 1) 1.09
Solubility Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow) Not available
Auto-ignition Temperature Not available
Decomposition Temperature Not available
Viscosity Not available (kinematic)

SECTION 10. STABILITY AND REACTIVITY
Reactivity
Not reactive.
Chemical Stability
Normally stable.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
Incompatible materials.
Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid).
Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION
Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.
Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>&gt; 1-5 mg/L (rat) (4-hour exposure)</td>
<td>1780 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td></td>
<td>1153 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat) (4-hour exposure)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.
Serious Eye Damage/Irritation
Human experience shows serious eye irritation. May cause reddening and swelling of tissues around the eyes.
STOT (Specific Target Organ Toxicity) - Single Exposure
  Inhalation
    May cause nose and throat irritation, lung irritation, coughing, headaches.
  Ingestion
    Symptoms may include nausea, vomiting, stomach cramps and diarrhea.
Aspiration Hazard
Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
Symptoms may include dry, red, cracked skin (dermatitis).
Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive Toxicity
- Development of Offspring
  No indication from ingredients.
- Sexual Function and Fertility
  No indication from ingredients.
- Effects on or via Lactation
  No information was located.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

**Acute Aquatic Toxicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>34-62 mg/L (Lepomis macrochirus (bluegill); 96-hour; static)</td>
<td>113 mg/L (Daphnia magna (water flea); 48-hour; static)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>210 mg/L (96-hour)</td>
<td>216 mg/L (96-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L (Lepomis macrochirus (bluegill); 96-hour)</td>
<td>1550 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Chronic Aquatic Toxicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish (21-day; semi-static)</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>&gt; 100 mg/L</td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 21-day; semi-static)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and Degradability
(Tetrasodium EDTA) By using samples from a river, a ditch and a lake as inocula in the closed bottle test, a biodegradation between 60 and 83% was obtained after 49 days at pH 6.5, whereas between 53 and 72% were obtained after 28 days at pH 8.0.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

Product Identifier: PL-40
SDS No.: Ver. 2 (July 28, 2017)
Date of Preparation: July 21, 2015
SECTION 14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Regulation</th>
<th>UN No.</th>
<th>Proper Shipping Name</th>
<th>Transport Hazard Class(es)</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian TDG</td>
<td>3266</td>
<td>CORROSIVE LIQUID, Basic, Inorganic (Sodium Metasilicate, Sodium Hydroxide)</td>
<td>Class 8</td>
<td>III</td>
</tr>
<tr>
<td>US DOT</td>
<td>3266</td>
<td>CORROSIVE LIQUID, Basic, Inorganic (Sodium Metasilicate, Sodium Hydroxide)</td>
<td>Class 8</td>
<td>III</td>
</tr>
</tbody>
</table>

Special Precautions for User
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are on the TSCA inventory or are exempt from TSCA inventory requirements under 40 CFR 720.

Additional USA Regulatory Lists
SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).
New Jersey Right To Know: Sodium Hydroxide (CAS: 1310-73-2); 2-butoxyethanol (CAS: 111-76-2).
California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 2  Flammability - 0  Instability - 0

SDS Prepared By
Technical Group

Date of Preparation
July 21, 2015

Revision Indicators
The following SDS content was changed on July 28, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Eye Contact.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Respiratory Protection.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.

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PL-74

SECTION 1. IDENTIFICATION

Product Identifier: PL-74
Other Means of Identification: Foaming Detergent
Recommended Use: Detergent for touchless carwash.
Restrictions on Use: None known.
Manufacturer: Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, www.transchem.com
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (September 6, 2017)
Date of Preparation: August 11, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A
GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315 Causes skin irritation.
H319 Causes serious eye irritation.
Precautionary Statement(s):
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves.
P280 Wear eye protection/face protection.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
Other Hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>68439-57-6</td>
<td>7-15</td>
<td>Sodium olefin Sulfonate</td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>68439-46-3</td>
<td>5-10</td>
<td>Alcohol Ethoxylate</td>
</tr>
</tbody>
</table>
SECTION 4. FIRST-AID MEASURES

First-aid Measures

**Inhalation**
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

**Skin Contact**
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. If skin irritation occurs get medical advice/attention. Clean clothing, shoes and leather goods.

**Eye Contact**
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

**Ingestion**
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

**Most Important Symptoms and Effects, Acute and Delayed**
If on skin: may cause mild irritation. If in eyes: causes moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

**Immediate Medical Attention and Special Treatment**
- **Target Organs**
  - Skin, eyes.
- **Special Instructions**
  - Rinse affected area (skin, eyes) thoroughly with water.
- **Medical Conditions Aggravated by Exposure**
  - None known.

SECTION 5. FIRE-FIGHTING MEASURES

**Extinguishing Media**
- **Suitable Extinguishing Media**
  - Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.
- **Unsuitable Extinguishing Media**
  - None known.

**Specific Hazards Arising from the Chemical**
Do not direct solid stream of water into burning liquid. Contact with water causes violent frothing and spattering. Hazardous combustion products: oxides of carbon and nitrogen.

**Special Protective Equipment and Precautions for Fire-fighters**
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment, and Emergency Procedures**
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

**Environmental Precautions**
It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.
Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks: dike spilled product to prevent runoff. Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Do not get in eyes, on skin or on clothing. Wear personal protective equipment to avoid direct contact with this chemical.

Conditions for Safe Storage
Store in a cool, dry place. Store away from incompatible materials.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
Eye/Face Protection
Wear chemical safety goggles and face shield when contact is possible.

Skin Protection
Wear chemical protective clothing e.g. gloves, aprons, boots.
Polyvinyl chloride, neoprene rubber, latex rubber.

Respiratory Protection
Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties
Appearance
Red liquid.

Odour
Cherry

Odour Threshold
Not available

pH
2.5 - 4.5

Melting Point/Freezing Point
Not available (melting); Not available (freezing)

Initial Boiling Point/Range
> 212 ºF

Flash Point
Not available

Evaporation Rate
Not available

Flammability (solid, gas)
Will not burn.

Upper/Lower Flammability or Explosive Limit
Not applicable (upper); Not applicable (lower)

Vapour Pressure
Not available

Vapour Density (air = 1)
Not available

Relative Density (water = 1)
1.02

Solubility
Soluble in water

Partition Coefficient, n-Octanol/Water (Log Kow)
Not available

Auto-ignition Temperature
Not available

Decomposition Temperature
Not available

Viscosity
Not available (kinematic)

Other Information

Product Identifier: PL-74
SDS No.: Ver. 2 (September 6, 2017)
Date of Preparation: August 11, 2015
**SECTION 10. STABILITY AND REACTIVITY**

Reactivity  
Not reactive.

Chemical Stability  
Normally stable.

Possibility of Hazardous Reactions  
None known.

Conditions to Avoid  
Incompatible materials.

Incompatible Materials  
Strong oxidizing agents (e.g. perchloric acid), strong reducing agents (e.g. hydrides).

Hazardous Decomposition Products  
None known.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Likely Routes of Exposure  
Inhalation; skin contact; eye contact.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>52-206 mg/L (rat)</td>
<td>2079-2340 mg/kg (rat)</td>
<td>6300-160000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>1378 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation  
Human experience shows mild irritation.

Serious Eye Damage/Irritation  
Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

- Inhalation  
  May cause nose and throat irritation, lung irritation.

- Ingestion  
  May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard  
Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure  
No information was located.

Respiratory and/or Skin Sensitization  
No information was located.

Carcinogenicity  
No components listed by IARC, ACGIH and NTP.

Reproductive Toxicity

- Development of Offspring  
  No indication from ingredients.

- Sexual Function and Fertility  
  No indication from ingredients.
Germ Cell Mutagenicity
No information was located.
Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>3.5-5 mg/L (96-hour)</td>
<td>4.53 (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>11 mg/L (Pimephales promelas (fathead minnow); 96-hour; fresh water)</td>
<td>5.3 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>1.5 mg/L</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

Special Precautions for User
Not applicable
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.
Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: Phosphoric acid (CAS: 7664-38-2).
SARA Title III - Section 313: No listed substances are known to be present.
### NFPA Rating
Health - 1

### SDS Prepared By
Technical Group

### Date of Preparation
August 11, 2015

### Revision Indicators
The following SDS content was changed on September 06, 2017:
- SECTION 1. IDENTIFICATION; Other Means of Identification.
- SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
- SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
- SECTION 4. FIRST-AID MEASURES; Inhalation; Skin Contact; Eye Contact; Ingestion.
- SECTION 5. FIRE-FIGHTING MEASURES; Extinguishing Media; Specific Hazards Arising from the Chemical; Special Protective Equipment and Precautions for Fire-fighters.
- SECTION 6. ACCIDENTAL RELEASE MEASURES; Environmental Precautions; Methods and Materials for Containment and Cleaning up.
- SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Appropriate Engineering Controls.
- SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; pH.
- SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Skin Corrosion/Irritation; Serious Eye Damage/Irritation; Inhalation; Ingestion.
- SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.
- SECTION 15. REGULATORY INFORMATION; Toxic Substances Control Act (TSCA) Section 8(b).

### Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
PL-81

SECTION 1. IDENTIFICATION

Product Identifier: PL-81
Other Means of Identification: Foaming Polish - Cherry Scented - Blue
Recommended Use: Sealant for touchless car wash applications.
Restrictions on Use: None known.
Manufacturer: Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, www.transchem.com
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
Canutec (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (October 4, 2017)
Date of Preparation: August 11, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A
GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315 Causes skin irritation.
H319 Causes serious eye irritation.
Precautionary Statement(s):
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves.
P280 Wear eye protection/face protection.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
Other Hazards: None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Dimethylamine Oxide</td>
<td>70592-80-2</td>
<td>3-5</td>
<td>N/A</td>
</tr>
<tr>
<td>Cocoamidopropyl Betaine</td>
<td>61789-40-0</td>
<td>3-5</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes

SDS No.: Ver. 2 (October 4, 2017)
Date of Preparation: August 11, 2015
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: repeated or prolonged exposure can irritate the skin. If in eyes: symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media
Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Do not direct solid stream of water into burning liquid. Contact with water causes violent frothing and spattering.
Hazardous combustion products: oxides of carbon and nitrogen.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Small spills or leaks: contain
and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Do NOT use combustible materials such as sawdust. Large spills or leaks: dike spilled product to prevent runoff. Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Do not get in eyes. Prevent skin contact. Wear personal protective equipment to avoid direct contact with this chemical.

Conditions for Safe Storage
Store in an area that is: cool, dry, separate from incompatible materials (see Section 10: Stability and Reactivity).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters
Not available.

Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection
Wear chemical safety goggles.

Skin Protection
Wear chemical protective clothing e.g. gloves, aprons, boots. Suitable material: PVC, Latex rubber, Neoprene. Suitable materials are: polyvinyl chloride, neoprene rubber, latex rubber.

Respiratory Protection
Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance Blue liquid.
Odour Cherry
Odour Threshold Not available
pH 7.0 - 9.0
Melting Point/Freezing Point Not applicable (melting); Not available (freezing)
Initial Boiling Point/Range Not available
Flash Point Not available
Evaporation Rate Not available
Flammability (solid, gas) Not available
Upper/Lower Flammability or explosive Limit Not applicable (upper); Not applicable (lower)
Vapour Pressure Not available
Vapour Density (air = 1) Not available
Relative Density (water = 1) 1.00
Solubility Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow) Not available
Auto-ignition Temperature Not available
Decomposition Temperature Not available
Viscosity Not available (kinematic)
SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials.

Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid), strong reducing agents (e.g. hydrides).

Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
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<tbody>
<tr>
<td>Alkyl Dimethylamine Oxide</td>
<td></td>
<td>2700 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Cocoamidopropyl Betaine</td>
<td>&gt; 5000 mg/kg (rat)</td>
<td>&gt; 5000 mg/kg (rat)</td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows mild irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure
Inhalation
If misted, causes irritation of the mucous membranes, coughing, difficulty breathing.
Ingestion
May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
Symptoms may include dry, red, cracked skin (dermatitis).

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity
No components listed by IARC, ACGIH and NTP.

Reproductive Toxicity
Development of Offspring
No indication from ingredients.
Sexual Function and Fertility
No indication from ingredients.
Effects on or via Lactation
Not known.
Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION
All components of this product are biodegradable by Regulation (EC) No 648/2004.

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
None known.
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.
USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.
Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: No listed substances are known to be present.
SARA Title III - Section 313: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 1
SDS Prepared By
Technical Group
Date of Preparation
August 11, 2015
Revision Indicators
The following SDS content was changed on October 04, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Inhalation; Skin Contact; Eye Contact; Ingestion.
SECTION 5. FIRE-FIGHTING MEASURES; Extinguishing Media; Specific Hazards Arising from the Chemical; Special Protective Equipment and Precautions for Fire-fighters.
SECTION 6. ACCIDENTAL RELEASE MEASURES; Environmental Precautions; Methods and Materials for Containment and Cleaning up.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Exposure Controls.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density; pH.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Skin Corrosion/Irritation; Serious Eye Damage/Irritation; Ingestion.

Product Identifier: PL-81
SDS No.: Ver. 2 (October 4, 2017)
Date of Preparation: August 11, 2015
Disclaimer

The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: PL-82
Other Means of Identification: Foaming Polish - Cherry Scented - Yellow
Recommended Use: Sealant for touchless car wash applications.
Restrictions on Use: None known.
Manufacturer: Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, www.transchem.com
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (October 4, 2017)
Date of Preparation: August 11, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification:
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A

GHS Label Elements:

Signal Word: Warning
Hazard Statement(s): H315 Causes skin irritation. H319 Causes serious eye irritation.
Response: P302 + P352 IF ON SKIN: Wash with plenty of water. P362 + P364 Take off contaminated clothing and wash it before reuse. P332 + P313 If skin irritation occurs: Get medical advice/attention. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/attention.
Other Hazards: None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Dimethylamine Oxide</td>
<td>70592-80-2</td>
<td>3-5</td>
<td>N/A</td>
</tr>
<tr>
<td>Cocoamidopropyl Betaine</td>
<td>61789-40-0</td>
<td>3-5</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes

Product Identifier: PL-82
SDS No.: Ver. 2 (October 4, 2017)
Date of Preparation: August 11, 2015
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: repeated or prolonged exposure can irritate the skin. If in eyes: symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Do not direct solid stream of water into burning liquid. Contact with water causes violent frothing and spattering. Hazardous combustion products: oxides of carbon and nitrogen.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Small spills or leaks: contain
and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Do NOT use combustible materials such as sawdust. Large spills or leaks: dike spilled product to prevent runoff. Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE
Precautions for Safe Handling
Do not get in eyes. Prevent skin contact. Wear personal protective equipment to avoid direct contact with this chemical.

Conditions for Safe Storage
Store in an area that is: cool, dry, separate from incompatible materials (see Section 10: Stability and Reactivity).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Control Parameters
Not available.

Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
Eye/Face Protection
Wear chemical safety goggles.

Skin Protection
Wear chemical protective clothing e.g. gloves, aprons, boots. Suitable material: PVC, Latex rubber, Neoprene. Suitable materials are: polyvinyl chloride, neoprene rubber, latex rubber.

Respiratory Protection
Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES
Basic Physical and Chemical Properties
Appearance
Yellow liquid.

Odour
Cherry

Odour Threshold
Not available

pH
7.0 - 9.0

Melting Point/Freezing Point
Not applicable (melting); Not available (freezing)

Initial Boiling Point/Range
Not available

Flash Point
Not available

Evaporation Rate
Not available

Flammability (solid, gas)
Not available

Upper/Lower Flammability or Explosive Limit
Not applicable (upper); Not applicable (lower)

Vapour Pressure
Not available

Vapour Density (air = 1)
Not available

Relative Density (water = 1)
1.00

Solubility
Soluble in water

Partition Coefficient, n-Octanol/Water (Log Kow)
Not available

Auto-ignition Temperature
Not available

Decomposition Temperature
Not available

Viscosity
Not available (kinematic)
SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials.

Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid), strong reducing agents (e.g. hydrides).

Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
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<td>&gt; 5000 mg/kg (rat)</td>
<td>&gt; 5000 mg/kg (rat)</td>
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</table>

Skin Corrosion/Irritation
Human experience shows mild irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

  Inhalation
  If misted, causes irritation of the mucous membranes, coughing, difficulty breathing.

  Ingestion
  May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Symptoms may include dry, red, cracked skin (dermatitis).

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity
No components listed by IARC, ACGIH and NTP.

Reproductive Toxicity

  Development of Offspring
  No indication from ingredients.

  Sexual Function and Fertility
  No indication from ingredients.

  Effects on or via Lactation
  No indication from ingredients.
Germ Cell Mutagenicity
No information was located.
Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION
All components of this product are biodegradable by Regulation (EC) No 648/2004.

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION
Special Precautions  Not applicable
for User
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
None known.
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.
USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.
Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: No listed substances are known to be present.
SARA Title III - Section 313: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION
NFPA Rating  Health - 1
SDS Prepared By  Technical Group
Date of Preparation  August 11, 2015
Revision Indicators  The following SDS content was changed on October 04, 2017:
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SECTION 6. ACCIDENTAL RELEASE MEASURES; Environmental Precautions; Methods and Materials for Containment and Cleaning up.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Exposure Controls.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density; pH.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Skin Corrosion/Irritation; Serious Eye Damage/Irritation; Ingestion.

Product Identifier:  PL-82
SDS No.:  Ver. 2 (October 4, 2017)  Page 05 of 06
Date of Preparation:  August 11, 2015
Disclaimer

The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: PL-83
Other Means of Identification: Foaming Polish - Cherry Scented - Red
Recommended Use: Sealant for touchless car wash applications.
Restrictions on Use: None known.
Manufacturer: Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, www.transchem.com
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (October 4, 2017)
Date of Preparation: August 11, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A

GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315 Causes skin irritation.
H319 Causes serious eye irritation.
Precautionary Statement(s):
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves.
P280 Wear eye protection/face protection.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
Other Hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Dimethylamine Oxide</td>
<td>70592-80-2</td>
<td>3-5</td>
<td>N/A</td>
</tr>
<tr>
<td>Cocoamidopropyl Betaine</td>
<td>61789-40-0</td>
<td>3-5</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes

SDS No.: Ver. 2 (October 4, 2017)
Date of Preparation: August 11, 2015
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: repeated or prolonged exposure can irritate the skin. If in eyes: symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Do not direct solid stream of water into burning liquid. Contact with water causes violent frothing and spattering. Hazardous combustion products: oxides of carbon and nitrogen.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Small spills or leaks: contain
and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Do NOT use combustible materials such as sawdust. Large spills or leaks: dike spilled product to prevent runoff. Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Do not get in eyes. Prevent skin contact. Wear personal protective equipment to avoid direct contact with this chemical.

Conditions for Safe Storage
Store in an area that is: cool, dry, separate from incompatible materials (see Section 10: Stability and Reactivity).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters
Not available.

Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
Eye/Face Protection
Wear chemical safety goggles.

Skin Protection
Wear chemical protective clothing e.g. gloves, aprons, boots. Suitable material: PVC, Latex rubber, Neoprene. Suitable materials are: polyvinyl chloride, neoprene rubber, latex rubber.

Respiratory Protection
Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance Red liquid.
Odour Cherry
Odour Threshold Not available
pH 7.0 - 9.0
Melting Point/Freezing Point Not applicable (melting); Not available (freezing)
Initial Boiling Point/Range Not available
Flash Point Not available
Evaporation Rate Not available
flammability (solid, gas) Not available
Upper/Lower Flammability or Explosive Limit Not applicable (upper); Not applicable (lower)
Vapour Pressure Not available
Vapour Density (air = 1) Not available
Relative Density (water = 1) 1.00
Solubility Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow) Not available
Auto-ignition Temperature Not available
Decomposition Temperature Not available
Viscosity Not available (kinematic)
SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials.

Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid), strong reducing agents (e.g. hydrides).

Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Dimethylamine Oxide</td>
<td></td>
<td>2700 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Cocoamidopropyl Betaine</td>
<td></td>
<td>&gt; 5000 mg/kg</td>
<td>&gt; 5000 mg/kg</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows mild irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
If misted, causes irritation of the mucous membranes, coughing, difficulty breathing.

Ingestion
May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
Symptoms may include dry, red, cracked skin (dermatitis).

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity
No components listed by IARC, ACGIH and NTP.

Reproductive Toxicity

Development of Offspring
No indication from ingredients.

Sexual Function and Fertility
No indication from ingredients.

Effects on or via Lactation
No indication from ingredients.

Product Identifier: PL-83
SDS No.: Ver. 2 (October 4, 2017)
Date of Preparation: August 11, 2015
Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION
All components of this product are biodegradable by Regulation (EC) No 648/2004.

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

Special Precautions
for User
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
None known.

Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.

Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: No listed substances are known to be present.
SARA Title III - Section 313: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 1

SDS Prepared By
Technical Group

Date of Preparation
August 11, 2015

Revision Indicators
The following SDS content was changed on October 04, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Inhalation; Skin Contact; Eye Contact; Ingestion.
SECTION 5. FIRE-FIGHTING MEASURES; Extinguishing Media; Specific Hazards Arising from the Chemical; Special Protective Equipment and Precautions for Fire-fighters.
SECTION 6. ACCIDENTAL RELEASE MEASURES; Environmental Precautions; Methods and Materials for Containment and Cleaning up.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Exposure Controls.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density; pH.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Skin Corrosion/Irritation; Serious Eye Damage/Irritation; Ingestion.
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**SECTION 1. IDENTIFICATION**

<table>
<thead>
<tr>
<th>Product Identifier</th>
<th>PL-84</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Means of Identification</td>
<td>Clear Coat Protectant - Cherry Scented</td>
</tr>
<tr>
<td>Recommended Use</td>
<td>Used for removal of water and water spots in tunnel car wash applications.</td>
</tr>
<tr>
<td>Restrictions on Use</td>
<td>None known.</td>
</tr>
<tr>
<td>Manufacturer / Supplier</td>
<td>Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, <a href="http://www.transchem.com">www.transchem.com</a></td>
</tr>
<tr>
<td>Emergency Phone No.</td>
<td>INFOTRAC (U.S.), 1-800-535-5053, 24 Hours</td>
</tr>
<tr>
<td></td>
<td>CANUTEC (Canada), 613-996-6666, 24 Hours</td>
</tr>
<tr>
<td>SDS No.</td>
<td>Ver. 2 (August 18, 2017)</td>
</tr>
<tr>
<td>Date of Preparation</td>
<td>August 24, 2015</td>
</tr>
</tbody>
</table>

**SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification**
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A; Aspiration hazard - Category 1

**GHS Label Elements**

<table>
<thead>
<tr>
<th>Signal Word:</th>
<th>Danger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Statement(s):</td>
<td></td>
</tr>
<tr>
<td>H304</td>
<td>May be fatal if swallowed and enters airways.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td><strong>Prevention:</strong></td>
<td></td>
</tr>
<tr>
<td>P264</td>
<td>Wash hands and skin thoroughly after handling.</td>
</tr>
<tr>
<td>P280</td>
<td>Wear protective gloves.</td>
</tr>
<tr>
<td>P280</td>
<td>Wear eye protection/face protection.</td>
</tr>
<tr>
<td><strong>Response:</strong></td>
<td></td>
</tr>
<tr>
<td>P301 + P310</td>
<td>IF SWALLOWED: Immediately call a POISON CENTRE/doctor.</td>
</tr>
<tr>
<td>P331</td>
<td>Do NOT induce vomiting.</td>
</tr>
<tr>
<td>P302 + P352</td>
<td>IF ON SKIN: Wash with plenty of water.</td>
</tr>
<tr>
<td>P362 + P364</td>
<td>Take off contaminated clothing and wash it before reuse.</td>
</tr>
<tr>
<td>P332 + P313</td>
<td>IF skin irritation occurs: Get medical advice/attention.</td>
</tr>
<tr>
<td>P305 + P351 + P338 IF IN EYES:</td>
<td>Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</td>
</tr>
<tr>
<td>P337 + P313</td>
<td>If eye irritation persists: Get medical advice/attention.</td>
</tr>
<tr>
<td><strong>Storage:</strong></td>
<td></td>
</tr>
<tr>
<td>P405</td>
<td>Store locked up.</td>
</tr>
<tr>
<td><strong>Disposal:</strong></td>
<td></td>
</tr>
<tr>
<td>P501</td>
<td>Dispose of contents/container in accordance with local, regional, national and international regulations.</td>
</tr>
<tr>
<td>Other Hazards</td>
<td>None known.</td>
</tr>
</tbody>
</table>

---

Product Identifier: PL-84  
SDS No.: Ver. 2 (August 18, 2017)  
Date of Preparation: August 24, 2015
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>64742-46-7</td>
<td>20-40</td>
<td>Mineral Seal Oil</td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco</td>
<td>61789-77-3</td>
<td>10-20</td>
<td>Di-Alkyl Quaternary ammonium chloride</td>
</tr>
<tr>
<td>alkyl(dimethyl, chlorides)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amines, C14-18 and C16-18-unsat. alkyl,</td>
<td>68155-39-5</td>
<td>5-10</td>
<td>Ethoxylated Fatty Acid Amine</td>
</tr>
<tr>
<td>ethoxylated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>2-5</td>
<td>Ethylene glycol monobutyl ether, Butyl Cellosolve</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed

If on skin: causes moderate to severe irritation. Repeated or prolonged exposure can irritate the skin. Symptoms include pain, redness, and swelling. May cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Use alcohol foam, carbon dioxide, water fog, halon, or dry chemical extinguishing media.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical

Treat as combustible fluid. Directing a solid stream of water into a hot burning liquid can cause frothing and spread the fire.
Special Protective Equipment and Precautions for Fire-fighters

No special precautions are necessary. Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Do not use combustible materials such as sawdust. Place used absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks: dike spilled product to prevent runoff. Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage

Separate from incompatible materials (see Section 10: Stability and Reactivity). Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>Ceiling</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td>20 ppm C</td>
<td>50 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin</td>
<td>Skin</td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>5 mg/m3</td>
<td>10 mg/m3</td>
<td>5 mg/m3</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

  Eye/Face Protection
  Wear chemical safety goggles and face shield when contact is possible.
  Skin Protection
  Wear chemical protective clothing e.g. gloves, aprons, boots.
  Suitable materials are: latex rubber, butyl rubber.
  Respiratory Protection
  Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Product Identifier: PL-84
SDS No.: Ver. 2 (August 18, 2017)
Date of Preparation: August 24, 2015
Appearance: Pink liquid.
Odour: Cherry
Odour Threshold: Not available
pH: 7 - 9
Melting Point/Freezing Point: Not available (melting); Not available (freezing)
Initial Boiling Point/Range: Not available
Flash Point: > 200 ºF (closed cup)
Evaporation Rate: Not available
Flammability (solid, gas): Not available
Upper/Lower Flammability or Explosive Limit: Not applicable (upper); Not applicable (lower)
Vapour Pressure: Not available
Vapour Density (air = 1): Not available
Relative Density (water = 1): 0.91
Solubility: Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow): Not available
Auto-ignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available (kinematic)
Other Information: Liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity
None known.
Chemical Stability
Normally stable.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
Incompatible materials.
Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid), strong reducing agents (e.g. hydrides).
Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Skin contact; eye contact; ingestion; inhalation.
Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat) (4-hour exposure)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides</td>
<td>200-2000 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>&gt; 10 mg/L (rat) (4-hour exposure)</td>
<td>&gt; 5,000 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Product Identifier: PL-84
SDS No.: Ver. 2 (August 18, 2017)
Date of Preparation: August 24, 2015
Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. May cause reddening and swelling of tissues around the eyes.

STOT (Specific Target Organ Toxicity) - Single Exposure
Inhalation
May cause nose and throat irritation, lung irritation, coughing, headaches.
Ingestion
Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
May cause lung damage if aspirated based on physical properties (e.g. kinematic viscosity) and chemical family (hydrocarbon).

STOT (Specific Target Organ Toxicity) - Repeated Exposure
Symptoms may include dry, red, cracked skin (dermatitis).
Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive Toxicity
Development of Offspring
Not known to harm the unborn child.
Sexual Function and Fertility
Not known to cause effects on sexual function or fertility.
Effects on or via Lactation
Not known to cause effects on or via lactation.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION
All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity
Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L (Lepomis macrochirus (bluegill); 96-hour)</td>
<td>1550 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides</td>
<td>0.195 mg/L (96-hour)</td>
<td>0.3 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>&gt; 100 mg/L (21-day; semi-static)</td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 21-day; semi-static)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides | 0.15 mg/L (Daphnia magna (water flea); 21-day)

Persistence and Degradability
(2-Butoxyethanol) Degradates rapidly based on quantitative tests. Biodegradable as per OECD 301E tests for ready biodegradability.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

Special Precautions for User
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.
USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.
Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: 2-butoxyethanol (CAS: 111-76-2).
SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 1  Flammability - 1  Instability - 0
SDS Prepared By
Technical Group
Date of Preparation
August 24, 2015
Revision Indicators
The following SDS content was changed on August 18, 2017:
SECTION 1. IDENTIFICATION; Other Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Eye Contact; Ingestion.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Control Parameters; Respiratory Protection.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Aspiration Hazard; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.

Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
PL-85

SECTION 1. IDENTIFICATION

Product Identifier | PL-85
Other Means of Identification | Clear Coat Protectant - Coconut Scented
Recommended Use | Used for removal of water and water spots in tunnel car wash applications.
Restrictions on Use | None known.
Manufacturer / Supplier | Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, www.transchem.com
Emergency Phone No. | INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No. | Ver. 2 (October 5, 2017)
Date of Preparation | August 24, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A
GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315 Causes skin irritation.
H319 Causes serious eye irritation.
Precautionary Statement(s):
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves.
P280 Wear eye protection/face protection.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
Other Hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quaternary ammonium compounds, dicoco</td>
<td>61789-77-3</td>
<td>5-10</td>
<td>Di-Alkyl Quaternary Ammonium Chloride</td>
</tr>
<tr>
<td>alkyldimethyl, chlorides</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>64742-46-7</td>
<td>5-10</td>
<td>Mineral Seal Oil</td>
</tr>
</tbody>
</table>
2-Butoxyethanol | 111-76-2 | 2-5 | Ethylene Glycol Monobutyl Ether, Butyl Cellosolve
Alkyl Dimethylamine Oxide | 70592-80-2 | 2-5 | N/A
Amines, C14-18 and C16-18-unsatd. alkyl, ethoxylated | 68155-39-5 | 2-5 | Ethoxylated Fatty Acid Amine

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Call a Poison Centre or doctor if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: causes moderate to severe irritation. Repeated or prolonged exposure can irritate the skin. Symptoms include pain, redness, and swelling. May cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.
Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Treat as combustible fluid. Do not direct solid stream of water into burning liquid. Contact with water causes violent frothing and spattering.

Special Protective Equipment and Precautions for Fire-fighters
No special precautions are necessary. Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Do NOT use combustible materials such as sawdust. Place used absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks: dike spilled product to prevent runoff. Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage

Separate from incompatible materials (see Section 10: Stability and Reactivity). Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>20 ppm C</td>
<td>50 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin</td>
<td>Skin</td>
<td></td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>5 mg/m3</td>
<td>10 mg/m3</td>
<td>5 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots. Suitable materials are: latex rubber, butyl rubber.

Respiratory Protection

Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance

Pink liquid.

Odour

Tropical

Odour Threshold

Not available

pH

7 - 9

Melting Point/Freezing Point

Not available (melting); Not available (freezing)
**SECTION 10. STABILITY AND REACTIVITY**

Reactivity
None known.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials.

Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid), strong reducing agents (e.g. hydrides).

Hazardous Decomposition Products
None known.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Likely Routes of Exposure
Skin contact; eye contact; ingestion; inhalation.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
<tr>
<td>(4-hour exposure)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco</td>
<td>200-2000 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>alkyl(dimethyl) chloride</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alkyl Dimethylamine Oxide</td>
<td>2700 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>&gt; 10 mg/L (rat) (4-hour exposure)</td>
<td>&gt; 5,000 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing.
STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
May cause nose and throat irritation, lung irritation, coughing, headaches.

Ingestion
Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Symptoms may include dry, red, cracked skin (dermatitis).
No data available on this mixture. No indication from ingredients.

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive Toxicity

Development of Offspring
Not known to harm the unborn child.

Sexual Function and Fertility
Not known to cause effects on sexual function or fertility.

Effects on or via Lactation
Not known to cause effects on or via lactation.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L</td>
<td>1550 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Lepomis macrochirus (bluegill); 96-hour)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides</td>
<td>0.195 mg/L (96-hour)</td>
<td>0.3 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>&gt; 100 mg/L (21-day; semi-static)</td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 21-day; semi-static)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides</td>
<td>0.15 mg/L (Daphnia magna (water flea); 21-day)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and Degradability

(2-Butoxyethanol) Degrades rapidly based on quantitative tests. Biodegradable as per OECD 301E tests for ready
SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION


Special Precautions for User
Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

Additional USA Regulatory Lists
California Proposition 65: No listed substances are known to be present.
New Jersey Right To Know: 2-butoxyethanol (CAS: 111-76-2).
SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 1 Flammability - 1 Instability - 0

SDS Prepared By
Technical Group

Date of Preparation
August 24, 2015

Revision Indicators
The following SDS content was changed on October 05, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information; Eye Contact.
SECTION 5. FIRE-FIGHTING MEASURES; Extinguishing Media; Specific Hazards Arising from the Chemical.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Control Parameters; Respiratory Protection.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Serious Eye Damage/Irritation; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.

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PL-102

SECTION 1. IDENTIFICATION

Product Identifier: PL-102
Other Means of Identification: Heavy Duty Wall & Equipment Cleaner
Recommended Use: Multi-purpose cleaner in a tunnel carwash.
Restrictions on Use: None known.
Manufacturer / Supplier: Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, www.transchem.com
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 3 (September 7, 2017)
Date of Preparation: July 22, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 1C; Serious eye damage/eye irritation - Category 1

GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
Prevention:
P260 Do not breathe dusts or mists.
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE/doctor.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Other Hazards:
None known.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2</td>
<td>20-40</td>
<td>N/A</td>
</tr>
<tr>
<td>Glycolic acid</td>
<td>79-14-1</td>
<td>2-5</td>
<td>Hydroxyacetic Acid</td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>68439-46-3</td>
<td>1-5</td>
<td>Alcohol Ethoxylate</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>1-3</td>
<td>Ethylene Glycol Monobutyl Ether, Butyl Cellosolve</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Immediately call a Poison Centre or doctor.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
May cause moderate to severe irritation. Repeated or prolonged exposure can irritate the skin. Symptoms include pain, redness, and swelling. If in eyes: may cause moderate to severe irritation. Symptoms include pain, redness, and swelling.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Review Section 10 (Stability and Reactivity) for additional information.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.
SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike spilled product to prevent runoff. Contact emergency services and manufacturer/supplier for advice.
Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage

Store in an area that is: clean, dry, separate from incompatible materials (see Section 10: Stability and Reactivity). Store in closed container. Do not store in metal containers. Keep out of reach of children. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td>20 ppm</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>1 mg/m³</td>
<td>3 mg/m³</td>
<td>1 mg/m³</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls

General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Suitable materials are: natural rubber, butyl rubber.

Respiratory Protection

Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance Clear liquid.
Odour Pungent
Odour Threshold Not available
pH < 1.5
Melting Point/Freezing Point Not available (melting); Not available (freezing)
Initial Boiling Point/Range  Not available
Flash Point  Not applicable
Evaporation Rate  Not available
Flammability (solid, gas)  Will not burn.
Upper/Lower Flammability or Explosive Limit  Not applicable (upper); Not applicable (lower)
Vapour Pressure  Not applicable
Vapour Density (air = 1)  ~ 1
Relative Density (water = 1)  1.17
Solubility  Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow)  Not available
Auto-ignition Temperature  Not available
Decomposition Temperature  Not available
Viscosity  Not available (kinematic)

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.
Chemical Stability
Unstable under certain conditions - see Conditions to Avoid.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
Contact with most metals above this temperature may release hydrogen. Temperatures above 230.0 °F (110.0 °C)
Incompatible Materials
Chlorates, nitrates, hypochlorites, oxidizing agents (e.g. peroxides).
Hazardous Decomposition Products
Thermal decomposition: very toxic carbon monoxide, carbon dioxide.
Upon contact with metals: flammable hydrogen gas.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.
Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat) (4-hour exposure)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>1530 mg/kg (rat)</td>
<td>2740 mg/kg (rabbit)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycolic acid</td>
<td>3.6 mg/L (rat) (4-hour exposure)</td>
<td>1950 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td></td>
<td>1378 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.
Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing. Prolonged exposure may cause eye damage.
STOT (Specific Target Organ Toxicity) - Single Exposure
Inhalation
May cause nose and throat irritation, lung irritation.

Ingestion
May be harmful or fatal.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
May cause irritation of the respiratory system. May cause respiratory tract injury.

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive Toxicity

- Development of Offspring
  No indication from ingredients.
- Sexual Function and Fertility
  No indication from ingredients.
- Effects on or via Lactation
  No indication from ingredients.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L (Lepomis macrochirus (bluegill); 96-hour)</td>
<td>1550 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>138 mg/L (96-hour)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glycolic acid</td>
<td>168 mg/L (Pimephales promelas (fathead minnow); 96-hour)</td>
<td>141 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>11 mg/L (Pimephales promelas (fathead minnow); 96-hour; fresh water)</td>
<td>5.3 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>&gt; 100 mg/L (21-day; semi-static)</td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 21-day; semi-static)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(2-Butoxyethanol) degrades rapidly based on quantitative tests. Biodegradable as per OECD 301E tests for ready biodegradability.

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

Review federal, state/provincial, and local government requirements prior to disposal.

**SECTION 14. TRANSPORT INFORMATION**

<table>
<thead>
<tr>
<th>Regulation</th>
<th>UN No.</th>
<th>Proper Shipping Name</th>
<th>Transport Hazard Class(es)</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian TDG</td>
<td>3264</td>
<td>CORROSIVE LIQUID, Acidic, Inorganic (Phosphoric Acid)</td>
<td>Class 8</td>
<td>III</td>
</tr>
<tr>
<td>US DOT</td>
<td>3264</td>
<td>CORROSIVE LIQUID, Acidic, Inorganic (Phosphoric Acid)</td>
<td>Class 8</td>
<td>III</td>
</tr>
</tbody>
</table>

**Special Precautions for User**

Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

**SECTION 15. REGULATORY INFORMATION**

**Safety, Health and Environmental Regulations**

**Canada**

- Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
  - All ingredients are listed on the DSL/NDSL.

**USA**

- Toxic Substances Control Act (TSCA) Section 8(b)
  - All ingredients are commercially available and presumed to be listed by manufacturer.
- Additional USA Regulatory Lists
  - SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).
  - New Jersey Right To Know: 2-butoxyethanol (CAS: 111-76-2); Phosphoric acid (CAS: 7664-38-2).
  - California Proposition 65: No listed substances are known to be present.

**SECTION 16. OTHER INFORMATION**

**NFPA Rating**

- Health - 2
- Flammability - 0
- Instability - 0

**SDS Prepared By**

Technical Group

**Date of Preparation**

July 22, 2015

**Revision Indicators**

The following SDS content was changed on September 07, 2017:

- SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
- SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
- SECTION 4. FIRST-AID MEASURES; Inhalation; Skin Contact; Eye Contact.
- SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Control Parameters.
- SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density.
- SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Carcinogenicity.
- SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.

**Disclaimer**

The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates.

**Product Identifier:** PL-102

**SDS No.:** Ver. 3 (September 7, 2017)

**Date of Preparation:** July 22, 2015
Recipient assumes all responsibility for the use of this information and the use, storage, or
disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: PL-103
Other Means of Identification: Reclaim Odor Control

Recommended Use: Anti-bacterial agent added to reclaimed water to control odor.
Restrictions on Use: None known.
Manufacturer / Supplier: Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, www.transchem.com
Emergency Phone No.: CANUTEC (Canada), 613-996-6666, 24 Hours
INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
SDS No.: Ver. 1
Date of Preparation: September 08, 2017

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2B

GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315 Causes skin irritation.
H320 Causes eye irritation.
Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves.
P280 Wear eye protection/face protection.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P332 + P337 IF SKIN IRRITATION OCCURS: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
Other Hazards: None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Dimethyl Dithiocarbamate</td>
<td>128-03-0</td>
<td>3-7</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.
SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If in eyes: may cause moderate irritation. Symptoms include slight redness and pain.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Does not burn.

Special Protective Equipment and Precautions for Fire-fighters

No special precautions are necessary. Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

Large spills or leaks: dike spilled product to prevent runoff.
Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Store in closed container. Separate from incompatible materials (see Section 10: Stability and Reactivity). Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>Potassium Dimethyl Dithiocarbamate</td>
<td></td>
<td></td>
<td>3 mg/m3 (R)</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls
General ventilation is usually adequate. Use a local exhaust ventilation and enclosure, if necessary, to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
- Eye/Face Protection
  - Wear chemical safety goggles.
- Skin Protection
  - Wear chemical protective clothing e.g. gloves, aprons, boots.
- Respiratory Protection
  - Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid.</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>11.0 - 12.5</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not available (melting); Not available (freezing)</td>
</tr>
<tr>
<td>Initial Boiling Point/Range</td>
<td>&gt; 212 °F (100 °C)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper/Lower Flammability or</td>
<td>Not applicable (upper); Not applicable (lower)</td>
</tr>
<tr>
<td>Explosive Limit</td>
<td></td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour Density (air = 1)</td>
<td>~ 1</td>
</tr>
<tr>
<td>Relative Density (water = 1)</td>
<td>1.02</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Partition Coefficient, n-Octanol/Water (Log Kow)</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not available</td>
</tr>
</tbody>
</table>
Decomposition Temperature: Not available
Viscosity: Not available (kinematic)
Physical State: Liquid

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials.

Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid).

Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; skin absorption; eye contact; ingestion.

Acute Toxicity
LC50: No information was located.
LD50 (oral): No information was located.
LD50 (dermal): No information was located.

Skin Corrosion/Irritation
Human experience shows mild irritation.

Serious Eye Damage/Irritation
Human experience shows mild irritation. Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
Not harmful.

Ingestion
May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
No information was located.

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity
Not known to cause cancer.

Reproductive Toxicity
Development of Offspring
Not known to harm the unborn child.

Sexual Function and Fertility
Not known to cause effects on sexual function or fertility.

Product Identifier: PL-103
SDS No.: Ver. 1
Date of Preparation: September 08, 2017
Effects on or via Lactation
Not known to cause effects on or via lactation.

Germ Cell Mutagenicity
No information was located.

Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION
All components of this product are biodegradable by Regulation (EC) No 648/2004.

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are listed on the TSCA Inventory.
Additional USA Regulatory Lists
New Jersey Right To Know: Potassium Dimethyl Dithiocarbamate (CAS: 128-03-0).
SARA Title III - Section 313: Potassium Dimethyl Dithiocarbamate (CAS: 128-03-0).

SECTION 16. OTHER INFORMATION
NFPA Rating
Health - 1  Flammability - 0  Instability - 0

SDS Prepared By
Technical Group

Date of Preparation
September 08, 2017

Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: PL-220
Other Means of Identification: Lava Bath - Megafoam - Bubble Gum Scented - Red
Recommended Use: Detergent for touchless carwash.
Restrictions on Use: None known.
Manufacturer / Supplier: Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, www.transchem.com
Emergency Phone No.: CANUTEC (Canada), 613-996-6666, 24 Hours
INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
SDS No.: Ver. 2 (September 8, 2017)
Date of Preparation: August 24, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification:
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A

GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315 Causes skin irritation.
H319 Causes serious eye irritation.
Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves.
P280 Wear eye protection/face protection.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of water/
P362 + P364 Take off contaminated clothing and wash it before reuse.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
Other Hazards:
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>68439-57-6</td>
<td>6-10</td>
<td>Sodium olefin Sulfonate</td>
</tr>
</tbody>
</table>

Notes

Product Identifier: PL-220
SDS No.: Ver. 2 (September 8, 2017)
Date of Preparation: August 24, 2015
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. If skin irritation occurs get medical advice/attention. Clean clothing, shoes and leather goods.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause mild irritation. Repeated or prolonged exposure can irritate the skin. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Contact with water causes violent frothing and spattering. Do not direct solid stream of water into burning liquid. Corrosive sulfur oxides; very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike and recover contaminated water for appropriate disposal.
Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.
Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Separate from incompatible materials (see Section 10: Stability and Reactivity). Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
- Eye/Face Protection
  - Wear chemical safety goggles and face shield when contact is possible.
- Skin Protection
  - Wear chemical protective clothing e.g. gloves, aprons, boots.
- Respiratory Protection
  - Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Red liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>Bubblegum</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>4.0 - 5.0</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not available (melting); Not available (freezing)</td>
</tr>
<tr>
<td>Initial Boiling Point/Range</td>
<td>&gt; 100 °C (212 °F)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper/Lower Flammability or Explosive Limit</td>
<td>Not applicable (upper); Not applicable (lower)</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour Density (air = 1)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative Density (water = 1)</td>
<td>1.01</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Partition Coefficient, n-Octanol/Water (Log Kow)</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available (kinematic)</td>
</tr>
</tbody>
</table>

Other Information

Product Identifier: PL-220
SDS No.: Ver. 2 (September 8, 2017)
Date of Preparation: August 24, 2015
SECTION 10. STABILITY AND REACTIVITY

Reactivity
None known.

Chemical Stability
Unstable under certain conditions - see Conditions to Avoid.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials.

Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid), strong reducing agents (e.g. hydrides).

Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 (mg/L, rat)</th>
<th>LD50 (mg/kg, rat)</th>
<th>LD50 (mg/kg, rabbit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>52-206</td>
<td>2079-2340</td>
<td>6300-160000</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows mild irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
May cause nose and throat irritation, lung irritation.

Ingestion
May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
No information was located.

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity
Not on ACGIH, IARC, NTP and OSHA lists.

Reproductive Toxicity
Development of Offspring
No indication from ingredients.

Sexual Function and Fertility
No indication from ingredients.

Effects on or via Lactation
No indication from ingredients.
Germ Cell Mutagenicity
No information was located.
Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish (96-hour)</th>
<th>EC50 Crustacea (48-hour)</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>3.5-5 mg/L</td>
<td>4.53 (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION


Special Precautions for User
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.

Additional USA Regulatory Lists
SARA Title III - Section 313: No listed substances are known to be present.
New Jersey Right To Know: No listed substances are known to be present.
California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 1  Flammability - 0  Instability - 0

SDS Prepared By Technical Group
Date of Preparation August 24, 2015
Revision Indicators
The following SDS content was changed on September 08, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Eye Contact.
SECTION 5. FIRE-FIGHTING MEASURES; Special Protective Equipment and Precautions for Fire-fighters.

Product Identifier: PL-220
SDS No.: Ver. 2 (September 8, 2017)
Date of Preparation: August 24, 2015
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Control Parameters.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; pH.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.

Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
PL-300

SECTION 1. IDENTIFICATION

Product Identifier: PL-300
Other Means of Identification: Low pH Presoak

Recommended Use: Used as presoak in touchless carwash applications.
Restrictions on Use: None known.
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTECH (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 1

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Acute toxicity (Oral) - Category 4; Acute toxicity (Dermal) - Category 4; Skin corrosion/irritation - Category 1C; Serious eye damage/eye irritation - Category 1

GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.

Prevention:
P260 Do not breathe dusts or mists.
P264 Wash hands and skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE/doctor.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Other Hazards
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>68439-46-3</td>
<td>5-10</td>
<td>Alcohol ethoxylate</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2</td>
<td>3-7</td>
<td>N/A</td>
</tr>
<tr>
<td>Benzenesulfonic acid, C10-16-alkyl derivs.</td>
<td>68584-22-5</td>
<td>3-7</td>
<td>Linear alkylbenzenesulfonic acid</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>1-5</td>
<td>Ethylene glycol monobutyl ether, Butyl Cellosolve</td>
</tr>
<tr>
<td>Ammonium bifluoride</td>
<td>1341-49-7</td>
<td>0.1-1</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Keep at rest in a position comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Avoid direct contact. Wear chemical protective clothing if necessary. Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Rinse with lukewarm, gently flowing water for 5 minutes. Immediately after water flushing: a. Soak the affected areas in iced 0.13% benzalkonium chloride (Zephiran®) solution. Continue soaks until medical treatment is available. OR b. Wearing chemical protective gloves, massage 2.5% calcium gluconate gel into the burn site. Apply gel frequently and massage continuously until medical treatment is available. If benzalkonium chloride (Zephiran®) or calcium gluconate gel is not available, continue water flushing until medical treatment is available. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely. Immediately call a Poison Centre or doctor.

Eye Contact
Avoid direct contact. Wear chemical protective gloves if necessary. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. DO NOT use benzalkonium chloride (Zephiran®) in the eyes. If sterile 1% calcium gluconate solution is available, limit water flushing for 5 minutes. Then, repeatedly flush the eye(s) using a syringe filled with 1% calcium gluconate solution. Immediately call a Poison Centre or doctor.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Drink large amounts of water. Immediately call a Poison Centre or doctor. Treatment is urgently required.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: contact can cause pain, redness, burns, and blistering. Permanent scarring can result. Can be absorbed through the skin causing damage to tissue, organs, and bones. If in eyes: contact causes severe burns with redness, swelling, pain and blurred vision. Permanent damage including blindness can result. If swallowed: can burn the lips, tongue, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Immediate Medical Attention and Special Treatment

Target Organs
Skin, eyes, digestive system.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.
SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

    Suitable Extinguishing Media
    Not combustible. Use extinguishing agent suitable for surrounding fire. Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.
    Unsuitable Extinguishing Media
    None known.

Specific Hazards Arising from the Chemical

Do not direct solid stream of water into burning liquid. Contact with water causes violent frothing and spattering.

Special Protective Equipment and Precautions for Fire-fighters

Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions

It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up. Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks: dike spilled product to prevent runoff. Remove or recover liquid using pumps or vacuum equipment. Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wear personal protective equipment to avoid direct contact with this chemical. Avoid release to the environment. Wash hands thoroughly after handling this material. Do NOT eat, drink or store food in work areas. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated, separate from incompatible materials (see Section 10: Stability and Reactivity). Store in a closed container. Do not store in metal containers. Comply with all applicable health and safety regulations, fire and building codes. Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>1 mg/m3</td>
<td>3 mg/m3</td>
<td>1 mg/m3</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td>20 ppm C Skin</td>
<td>50 ppm Skin</td>
</tr>
<tr>
<td>Ammonium bifluoride</td>
<td>2.5 mg/m3</td>
<td></td>
<td>2.5 mg/m3</td>
</tr>
</tbody>
</table>
Appropriate Engineering Controls
General ventilation is usually adequate. Use a local exhaust ventilation and enclosure, if necessary, to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists. Provide a Hydrofluoric acid first aid kit complete with calcium gluconate gel.

Individual Protection Measures
Eye/Face Protection
- Wear chemical safety goggles and face shield when contact is possible.
Skin Protection
- Wear chemical protective clothing e.g. gloves, aprons, boots.
- Suitable materials are: neoprene rubber, polyvinyl chloride, latex rubber.
Respiratory Protection
- Not normally required if product is used as directed. For non-routine or emergency situations: wear a full facepiece NIOSH approved air-purifying respirator with an acid gas cartridge.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear amber liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>&lt; 2.5</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>Not available (melting); Not available (freezing)</td>
</tr>
<tr>
<td>Initial Boiling Point/Range</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Will not burn.</td>
</tr>
<tr>
<td>Upper/Lower Flammability or</td>
<td>Not available (upper); Not available (lower)</td>
</tr>
<tr>
<td>Explosive Limit</td>
<td></td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour Density (air = 1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative Density (water = 1)</td>
<td>1.03</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Partition Coefficient,</td>
<td>Not available</td>
</tr>
<tr>
<td>n-Octanol/Water (Log Kow)</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available (kinematic)</td>
</tr>
<tr>
<td>Other Information</td>
<td></td>
</tr>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
</tbody>
</table>

SECTION 10. STABILITY AND REACTIVITY

Reactivity
- None known.
Chemical Stability
- Unstable under certain conditions - see Conditions to Avoid.
Possibility of Hazardous Reactions
- None known.
Conditions to Avoid
- Contact with most metals above this temperature may release hydrogen. Temperatures above 110.0 °C (230.0 °F)
- Incompatible Materials
- Oxidizing agents (e.g. peroxides), nitrates, chlorates, metals (e.g. aluminum).
Hazardous Decomposition Products
Thermal decomposition: very toxic carbon monoxide, carbon dioxide.
Upon contact with metals: flammable hydrogen gas.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; skin absorption; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>1530 mg/kg (rat)</td>
<td>2740 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>1378 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td>Benzenesulfonic acid, C10-16-alkyl derivs.</td>
<td>500-2000 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat) (4-hour exposure)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Ammonium bifluoride</td>
<td>130 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows skin corrosion. Contact can cause pain, redness, burns, and blistering. Permanent scarring can result. Effects may be delayed.

Serious Eye Damage/Irritation
Human experience shows serious eye damage. May irritate or burn the eyes. Permanent damage including blindness may result.

STOT (Specific Target Organ Toxicity) - Single Exposure
Inhalation
May cause nose and throat irritation, lung injury.

Skin Absorption
Hydrogen fluoride is readily absorbed through the skin. Absorption through skin is not always immediately apparent from burns or pain. May cause damage to organs based on human experience. May cause severe metabolic disturbances resulting in irregular heartbeat and depression of the central nervous system. Symptoms may include headache, nausea, vomiting, dizziness, drowsiness, confusion and convulsions.

Ingestion
Product is harmful if swallowed. May cause severe irritation or burns to the mouth, throat and stomach. May cause damage to organs based on human experience. May cause severe metabolic disturbances resulting in irregular heartbeat and depression of the central nervous system. Symptoms may include headache, nausea, vomiting, dizziness, drowsiness, confusion and convulsions.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
Long term exposure to HF could cause fluorosis, resulting in weight loss, anemia, brittle bones, and poor health.

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reproductive Toxicity
Development of Offspring
No information was located.

Sexual Function and Fertility
No information was located.
SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

**Toxicity**

**Acute Aquatic Toxicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric Acid</td>
<td>138 mg/L (96-hour)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>11 mg/L (Pimephales promelas (fathead minnow); 96-hour; fresh water)</td>
<td>5.3 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzenesulfonic acid, C10-16-alkyl derivs.</td>
<td>1.67 mg/L (96-hour)</td>
<td>2.4 mg/L (48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L (Lepomis macrochirus (bluegill); 96-hour)</td>
<td>1550 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammonium bifluoride</td>
<td>364 mg/L (Pimephales promelas (fathead minnow); 96-hour; static)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Chronic Aquatic Toxicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>NOEC Fish</th>
<th>EC50 Fish</th>
<th>NOEC Crustacea</th>
<th>EC50 Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>1.5 mg/L</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>&gt; 100 mg/L (21-day; semi-static)</td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 21-day; semi-static)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal Methods**

Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Regulation</th>
<th>UN No.</th>
<th>Proper Shipping Name</th>
<th>Transport Hazard Class(es)</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>US DOT</td>
<td>3264</td>
<td>CORROSIVE LIQUID, Acidic, Inorganic (Phosphoric Acid, Ammonium Bifluoride)</td>
<td>Class 8</td>
<td>III</td>
</tr>
<tr>
<td>Canadian TDG</td>
<td>3264</td>
<td>CORROSIVE LIQUID, Acidic, Inorganic (Phosphoric Acid, Ammonium Bifluoride)</td>
<td>Class 8</td>
<td>III</td>
</tr>
</tbody>
</table>

**Special Precautions for User**

Not applicable
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are listed on the TSCA Inventory.

Additional USA Regulatory Lists
SARA Title III - Section 313: Phosphoric acid (CAS: 7664-38-2); 2-butoxyethanol (CAS: 111-76-2).
New Jersey Right To Know: Phosphoric acid (CAS: 7664-38-2); 2-butoxyethanol (CAS: 111-76-2); Ammonium bifluoride (CAS: 1341-49-7).
California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 2  Flammability - 0  Instability - 0

SDS Prepared By
Technical Group

Date of Preparation
October 31, 2017

Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier                  PL-410
Other Means of Identification       Touchless Presoak
Recommended Use                     Used as presoak in touchless carwash applications.
Restrictions on Use                 None known.
Manufacturer / Supplier             Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, www.transchem.com
Emergency Phone No.                 INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
                                      CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.                              Ver. 2 (August 1, 2017)
Date of Preparation                  August 04, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A
GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315 Causes skin irritation.
H319 Causes serious eye irritation.
Precautionary Statement(s):
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves.
P280 Wear eye protection/face protection.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of water/
P362 + P364 Take off contaminated clothing and wash it before reuse.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
Other Hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surfactant Blend</td>
<td>CBI*</td>
<td>3-6</td>
<td>N/A</td>
</tr>
<tr>
<td>Tetrassodium EDTA</td>
<td>64-02-8</td>
<td>2-4</td>
<td>Ethylenediaminetetraacetic acid</td>
</tr>
</tbody>
</table>

Product Identifier: PL-410
SDS No.: Ver. 2 (August 1, 2017)
Date of Preparation: August 04, 2015
Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse with lukewarm, gently flowing water for 15-20 minutes. Completely decontaminate clothing, shoes, and leather goods before reuse or discard. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause moderate to severe irritation. Repeated or prolonged exposure can irritate the skin. Symptoms include pain, redness, and swelling. If in eyes: may cause moderate to severe irritation. Symptoms include pain, redness, and swelling.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.
Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Not combustible. Use extinguishing agent suitable for surrounding fire.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Review Section 10 (Stability and Reactivity) for additional information.

Special Protective Equipment and Precautions for Fire-fighters
No special precautions are necessary. Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.

See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Use the personal protective equipment recommended in Section 8 of this safety data sheet.
Environmental Precautions
Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike spilled product to prevent runoff.
Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE
Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Store in an area that is: cool, dry, separate from incompatible materials (see Section 10: Stability and Reactivity). Store in closed container. Keep out of reach of children. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Control Parameters
Not available.

Appropriate Engineering Controls
General ventilation is usually adequate. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
Eye/Face Protection
Wear chemical safety goggles.

Skin Protection
Wear chemical protective clothing e.g. gloves, aprons, boots.
Suitable materials are: polyvinyl chloride, latex rubber, polyethylene.

Respiratory Protection
Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES
Basic Physical and Chemical Properties
Appearance Green liquid.
Odour Mild
Odour Threshold Not available
pH 12.5 - 13.3
Melting Point/Freezing Point Not available (melting); Not available (freezing)
Initial Boiling Point/Range Not available
Flash Point Not applicable
Evaporation Rate Not available
Flammability (solid, gas) Not available
Upper/Lower Flammability or Explosive Limit Not applicable (upper); Not applicable (lower)
Vapour Pressure Not applicable
Vapour Density (air = 1) ~ 1
Relative Density (water = 1) 1.05

Product Identifier: PL-410
SDS No.: Ver. 2 (August 1, 2017)
Date of Preparation: August 04, 2015
Solubility          Soluble in water
Partition Coefficient,  n-Octanol/Water (Log Kow)
Auto-ignition Temperature  Not available
Decomposition Temperature  Not available
Viscosity           Not available (kinematic)

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials.

Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid).

Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>&gt; 1-5 mg/L (rat) (4-hour exposure)</td>
<td>1780 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Trisodium NTA</td>
<td>&gt; 5 mg/L (rat) (4-hour exposure)</td>
<td>920 mg/kg (rat)</td>
<td>&gt; 5000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td></td>
<td>1153 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td></td>
<td>365 mg/kg (rat)</td>
<td>&gt; 1260 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation
Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing. May cause reddening and swelling of tissues around the eyes.

STOT (Specific Target Organ Toxicity) - Single Exposure

  Inhalation
  May cause nose and throat irritation, lung irritation, coughing, headaches.

  Ingestion
  Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure
Symptoms may include dry, red, cracked skin (dermatitis).

Respiratory and/or Skin Sensitization
No information was located.
Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trisodium NTA</td>
<td>Group 2B</td>
<td>Not Listed</td>
<td>Reasonably anticipated</td>
<td></td>
</tr>
</tbody>
</table>

In laboratory tests, rats and mice continuously fed massive doses of NTA showed evidence of urinary tract (bladder and kidney) toxicity, including cancer; lower doses showed none of these toxic effects. By ACGIH guidelines NTA would not be considered an occupational (human) carcinogen of any practical significance.

Contains 2-butoxyethanol. (2-butoxyethanol) IARC: Group 3 – Not classifiable as to its carcinogenicity to humans. ACGIH®: A3 – Confirmed animal carcinogen.

Reproductive Toxicity

- Development of Offspring
  - Not known to harm the unborn child.
- Sexual Function and Fertility
  - Not known to cause effects on sexual function or fertility.
- Effects on or via Lactation
  - Not known to cause effects on or via lactation.

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>34-62 mg/L (Lepomis macrochirus (bluegill); 96-hour; static)</td>
<td>113 mg/L (Daphnia magna (water flea); 48-hour; static)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trisodium NTA</td>
<td>175-225 mg/L (Lepomis macrochirus (bluegill); 96-hour; static)</td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>210 mg/L (96-hour)</td>
<td>216 mg/L (96-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>80 mg/L (96-hour)</td>
<td>56 mg/L (48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Persistence and Degradability

(Tetrasodium EDTA) By using samples from a river, a ditch and a lake as inocula in the closed bottle test, a biodegradation between 60 and 83% was obtained after 49 days at pH 6.5, whereas between 53 and 72% were obtained after 28 days at pH 8.0.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION


Special Precautions

Not applicable
SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

Additional USA Regulatory Lists
SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2); Nitrilotriacetic acid (CAS: 139-13-9).
New Jersey Right To Know: Potassium hydroxide (CAS: 1310-58-3); 2-butoxyethanol (CAS: 111-76-2);
Nitrilotriacetic acid (CAS: 139-13-9).
California Proposition 65: Nitrilotriacetic acid (CAS: 139-13-9).

SECTION 16. OTHER INFORMATION

NFPA Rating
Health - 2  Flammability - 0  Instability - 0

SDS Prepared By
Technical Group

Date of Preparation
August 04, 2015

Revision Indicators
The following SDS content was changed on August 01, 2017:
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Eye Contact.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Control Parameters;
Respiratory Protection.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density; pH.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity.
SECTION 15. REGULATORY INFORMATION; Toxic Substances Control Act (TSCA) Section 8(b).

Disclaimer
The information contained here in has been compiled from sources believed to be reliable and
is accurate to the best of our knowledge at this date. It is provided without warranty, expressed
or implied, as to the results of use of this information or to the product to which it relates.
Recipient assumes all responsibility for the use of this information and the use, storage, or
disposal of the product, including any resultant personal injury or property damage.
PL-900

SECTION 1. IDENTIFICATION

Product Identifier: PL-900
Other Means of Identification: Rust Inhibitor

Recommended Use: Applied to underbody of vehicles to inhibit rust formation.
Restrictions on Use: None known.
Manufacturer / Supplier: Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, www.transchem.com
Emergency Phone No. INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (September 12, 2017)
Date of Preparation: August 24, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2B

GHS Label Elements

Signal Word: Warning
Hazard Statement(s):
H315 Causes skin irritation.
H320 Causes eye irritation.
Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves.
P280 Wear eye protection/face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 IF eye irritation persists: Get medical advice/attention.

Other Hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Contains no hazardous ingredients. Mixture:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Cyclohexene-1-octanoic acid, 5(or 6)-carboxy-4-hexyl-</td>
<td>53980-88-4</td>
<td>&lt;1</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Product Identifier: PL-900
SDS No.: Ver. 2 (September 12, 2017)
Date of Preparation: August 24, 2015
SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause mild irritation. Repeated or prolonged exposure can irritate the skin. Symptoms include pain, redness, and swelling. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Hazardous combustion products: oxides of carbon and nitrogen. Do not direct solid stream of water into burning liquid. Contact with water causes violent frothing and spattering.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills.
See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Product Identifier: PL-900
SDS No.: Ver. 2 (September 12, 2017)
Date of Preparation: August 24, 2015
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks:
Contain and soak up spill with absorbent that does not react with spilled product. Do not use combustible materials such as sawdust. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike and recover contaminated water for appropriate disposal.
Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.
Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
See Section 13 (Disposal Considerations) of this safety data sheet. Wear personal protective equipment to avoid direct contact with this chemical.

Conditions for Safe Storage
Store in an area that is: clean, dry. Store in a closed container. Keep from freezing. Comply with all applicable health and safety regulations, fire and building codes. Separate from incompatible materials (see Section 10: Stability and Reactivity).

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters
Not available.

Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures
- Eye/Face Protection
  - Wear chemical safety goggles.
- Skin Protection
  - Wear chemical protective clothing e.g. gloves, aprons, boots.
- Respiratory Protection
  - Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties
- **Appearance**: Light amber liquid.
- **Odour**: Mild
- **Odour Threshold**: Not available
- **pH**: 7.0 - 9.0
- **Melting Point/Freezing Point**: Not available (melting); Not available (freezing)
- **Initial Boiling Point/Range**: > 212 °F
- **Flash Point**: Not available
- **Evaporation Rate**: Not available
- **Flammability (solid, gas)**: Will not burn.
- **Upper/Lower Flammability or Explosive Limit**: Not applicable (upper); Not applicable (lower)
- **Vapour Pressure**: Not available
- **Vapour Density (air = 1)**: Not applicable
- **Relative Density (water = 1)**: 1.0
- **Solubility**: Soluble in water
SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials.

Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid), strong reducing agents (e.g. hydrides).

Hazardous Decomposition Products
Very toxic carbon monoxide, carbon dioxide; hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Cyclohexene-1-octanoic acid, 5(or 6)-carboxy-4-hexyl-</td>
<td>&gt; 6,000 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation
Human experience shows mild irritation.

Serious Eye Damage/Irritation
Human experience shows mild irritation. Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation
May cause nose and throat irritation, lung irritation.

Ingestion
Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard
No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Prolonged or repeated exposure can cause drying, defatting, and dermatitis.

Respiratory and/or Skin Sensitization
No information was located.

Carcinogenicity
Not on ACGIH, IARC, NTP and OSHA lists.

Reproductive Toxicity
Development of Offspring
No indication from ingredients.

No indication from ingredients.

Germ Cell Mutagenicity
No information was located.
Interactive Effects
No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Cyclohexene-1-octanoic acid, 5(or 6)-carboxy-4-hexyl-</td>
<td>15 mg/L (Pimephales promelas (fathead minnow); 96-hour)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION

Special Precautions
for User
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.

USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.
Additional USA Regulatory Lists
SARA Title III - Section 313: No listed substances are known to be present.
New Jersey Right To Know: Potassium hydroxide (CAS: 1310-58-3).
California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION

NFPA Rating Health - 1 Flammability - 0 Instability - 0
SDS Prepared By Technical Group
Date of Preparation August 24, 2015
Revision Indicators The following SDS content was changed on September 12, 2017:

Product Identifier: PL-900
SDS No.: Ver. 2 (September 12, 2017)
Date of Preparation: August 24, 2015
SECTION 2. HAZARDS IDENTIFICATION; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Skin Contact; Eye Contact.
SECTION 5. FIRE-FIGHTING MEASURES; Specific Hazards Arising from the Chemical; Special Protective Equipment and Precautions for Fire-fighters.
SECTION 6. ACCIDENTAL RELEASE MEASURES; Methods and Materials for Containment and Cleaning up.
SECTION 7. HANDLING AND STORAGE; Storing Information.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Workplace Controls; Exposure Limit Concentrations.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density; pH.
SECTION 10. STABILITY AND REACTIVITY; Chemical Stability; Hazardous Reactions.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Serious Eye Damage/Irritation.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity.
SECTION 13. DISPOSAL CONSIDERATIONS; Disposal Methods.
SECTION 14. TRANSPORT INFORMATION; Transportation Regulations; UN Number.
SECTION 15. REGULATORY INFORMATION; Toxic Substances Control Act (TSCA) Section 8(b).

**Disclaimer**

The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
SECTION 1. IDENTIFICATION

Product Identifier: PLS-36
Other Means of Identification: Self Serve Foaming Sealant - Grape Scented
Recommended Use: Sealant for self serve car washes.
Restrictions on Use: None known.
Manufacturer / Supplier: Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, www.transchem.com
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (July 26, 2017)
Date of Preparation: July 17, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 2; Serious eye damage/eye irritation - Category 2A; Aspiration hazard - Category 1

GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H304 May be fatal if swallowed and enters airways.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
Prevention:
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves.
P280 Wear eye protection/face protection.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
P331 Do NOT induce vomiting.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.
Other Hazards
None known.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates (Petroleum), Hydrotreated Middle</td>
<td>64742-46-7</td>
<td>15-30</td>
<td>Mineral seal oil</td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkylidimethyl, chlorides</td>
<td>61789-77-3</td>
<td>5-10</td>
<td>Di-Alkyl Quaternary Ammonium Chloride</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>2-4</td>
<td>Ethylene glycol monobutyl ether Butyl Cellosolve</td>
</tr>
<tr>
<td>2-(2-Butoxyethoxy)ethanol</td>
<td>112-34-5</td>
<td>2-4</td>
<td>Diethylene glycol monobutyl ether</td>
</tr>
<tr>
<td>Amines, C14-18 and C16-18-unsatd. alkyl, ethoxylated</td>
<td>68155-39-5</td>
<td>2-4</td>
<td>Ethoxylated Fatty Acid Amine</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

Skin Contact
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely. If skin irritation occurs get medical advice/attention.

Eye Contact
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice/attention.

Ingestion
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Immediately call a Poison Centre or doctor.

Most Important Symptoms and Effects, Acute and Delayed
If on skin: may cause moderate to severe irritation. If in eyes: may cause moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

Immediate Medical Attention and Special Treatment

Target Organs
Eyes, skin.

Special Instructions
Rinse affected area (skin, eyes) thoroughly with water.

Medical Conditions Aggravated by Exposure
None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media
Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

Unsuitable Extinguishing Media
None known.

Specific Hazards Arising from the Chemical
Do not direct solid stream of water into burning liquid. Contact with water causes violent frothing and spattering.

Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES
Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks:
Large spills or leaks: dike spilled product to prevent runoff. Remove or recover liquid using pumps or vacuum equipment. Contact emergency services and manufacturer/supplier for advice. Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE
Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Store in an area that is: clean, dry. Store in closed container. Keep from freezing. Keep out of reach of children.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td></td>
<td></td>
<td>TWA</td>
</tr>
<tr>
<td>2-(2-Butoxyethoxy)ethanol</td>
<td></td>
<td></td>
<td>TWA</td>
</tr>
<tr>
<td>Distillates (Petroleum), Hydrotreated</td>
<td></td>
<td></td>
<td>TWA</td>
</tr>
<tr>
<td>Middle</td>
<td></td>
<td></td>
<td>TWA</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash in work area, if contact or splash hazard exists.

Individual Protection Measures
- **Eye/Face Protection**
  - Wear chemical safety goggles and face shield when contact is possible.
- **Skin Protection**
  - Wear chemical protective clothing e.g. gloves, aprons, boots.
- **Respiratory Protection**
  - Not normally required when used under recommended conditions.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES
Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Product Identifier:</th>
<th>PLS-36</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDS No.:</td>
<td>Ver. 2 (July 26, 2017)</td>
</tr>
<tr>
<td>Date of Preparation:</td>
<td>July 17, 2015</td>
</tr>
</tbody>
</table>
Appearance: Purple liquid.
Odour: Grape
Odour Threshold: Not available
pH: 6.5 - 9.5
Melting Point/Freezing Point: Not available (melting); Not available (freezing)
Initial Boiling Point/Range: Not available
Flash Point: 199.9 ºF (93.3 ºC)
Evaporation Rate: Not available
Flammability (solid, gas): Will not burn.
Upper/Lower Flammability or Explosive Limit: Not applicable (upper); Not applicable (lower)
Vapour Pressure: Not available
Vapour Density (air = 1): Not applicable
Relative Density (water = 1): 0.95
Solubility: Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow): Not available
Auto-ignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available (kinematic)
Other Information: Liquid
Physical State: Liquid

SECTION 10. STABILITY AND REACTIVITY
Reactivity
Not reactive.
Chemical Stability
Normally stable.
Possibility of Hazardous Reactions
None known.
Conditions to Avoid
None known.
Incompatible Materials
None known.
Hazardous Decomposition Products
Very toxic carbon monoxide, carbon dioxide; hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION
Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.
Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>450 ppm (female rat) (4-hour exposure)</td>
<td>400-917 mg/kg (rat)</td>
<td>220 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyl dimethyl, chlorides</td>
<td>200-2000 mg/kg (rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-(2-Butoxyethoxy)ethanol</td>
<td>3384 mg/kg (rat)</td>
<td>2700 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>
**Skin Corrosion/Irritation**
Human experience shows moderate or severe irritation.

**Serious Eye Damage/Irritation**
Human experience shows serious eye irritation. Prolonged exposure may cause eye damage.

**STOT (Specific Target Organ Toxicity) - Single Exposure**
- **Inhalation**
  - May cause nose and throat irritation, lung irritation.
- **Ingestion**
  - Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

**Aspiration Hazard**
May cause lung damage if aspirated based on physical properties (e.g. kinematic viscosity) and chemical family (hydrocarbon).

**STOT (Specific Target Organ Toxicity) - Repeated Exposure**
No indication from ingredients.

**Respiratory and/or Skin Sensitization**
No information was located.

**Carcinogenicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>IARC</th>
<th>ACGIH®</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Group 3</td>
<td>A3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Reproductive Toxicity**
- **Development of Offspring**
  - No indication from ingredients.
- **Sexual Function and Fertility**
  - No indication from ingredients.
- **Effects on or via Lactation**
  - No indication from ingredients.

**Germ Cell Mutagenicity**
No information was located.

**Interactive Effects**
No information was located.

**SECTION 12. ECOLOGICAL INFORMATION**
All components of this product are biodegradable by Regulation (EC) No 648/2004.

**Toxicity**

**Acute Aquatic Toxicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>1490-2950 mg/L (Lepomis macrochirus (bluegill); 96-hour)</td>
<td>1550 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quaternary ammonium compounds, dicoco alkyl dimethyl, chlorides</td>
<td>0.195 mg/L (96-hour)</td>
<td>0.3 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-(2-Butoxyethoxy)ethanol</td>
<td>1300 mg/L (Lepomis macrochirus (bluegill); 96-hour)</td>
<td>&gt; 100 mg/L (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Chronic Aquatic Toxicity**

**Development of Offspring**
No indication from ingredients.

**Sexual Function and Fertility**
No indication from ingredients.

**Effects on or via Lactation**
No indication from ingredients.
Persistence and Degradability
(Quaternary ammonium compounds, dicoco alkyltrimethyl, chlorides) Biodegradable as per OECD 301E tests for ready biodegradability. Degrades rapidly based on quantitative tests.
(2-Butoxyethanol) Biodegradable as per OECD 301E tests for ready biodegradability. Degrades rapidly based on quantitative tests.

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal Methods
Review federal, state/provincial, and local government requirements prior to disposal.

SECTION 14. TRANSPORT INFORMATION
Special Precautions for User
Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15. REGULATORY INFORMATION
Safety, Health and Environmental Regulations
Canada
Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.
USA
Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are commercially available and presumed to be listed by manufacturer.
Additional USA Regulatory Lists
SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).
New Jersey Right To Know: 2-butoxyethanol (CAS: 111-76-2).
California Proposition 65: No listed substances are known to be present.

SECTION 16. OTHER INFORMATION
NFPA Rating
Health - 1 Flammability - 0 Instability - 0
SDS Prepared By Technical Group
Date of Preparation July 17, 2015
Revision Indicators
The following SDS content was changed on July 26, 2017:
SECTION 1. IDENTIFICATION; Other Means of Identification.
SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Skin Contact; Eye Contact; Ingestion.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Control Parameters.
SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; Relative Density.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Aspiration Hazard; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.
Disclaimer

The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
PLS-51

SECTION 1. IDENTIFICATION

Product Identifier: PLS-51
Other Means of Identification: Self Serve High Pressure Detergent - Apple Scented
Recommended Use: High pressure detergent for self serve carwashes.
Restrictions on Use: None known.
Manufacturer / Supplier: Transchem Inc., 1225 Franklin Blvd, Cambridge, ON, N1R 7E5, 1-800-265-9100, www.transchem.com
Emergency Phone No.: INFOTRAC (U.S.), 1-800-535-5053, 24 Hours
CANUTEC (Canada), 613-996-6666, 24 Hours
SDS No.: Ver. 2 (August 18, 2017)
Date of Preparation: July 20, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Skin corrosion/irritation - Category 1C; Serious eye damage/eye irritation - Category 1
GHS Label Elements

Signal Word: Danger
Hazard Statement(s):
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
Prevention:
P260 Do not breathe dusts or mists.
P264 Wash hands and skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
Response:
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 Wash contaminated clothing before reuse.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE/doctor.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.
Other Hazards
None known.
**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>%</th>
<th>Other Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>68439-57-6</td>
<td>4-8</td>
<td>Sodium olefin Sulfonate</td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>6834-92-0</td>
<td>3-7</td>
<td>N/A</td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>68439-46-3</td>
<td>3-7</td>
<td>Alcohol ethoxylate</td>
</tr>
<tr>
<td>Tetrasodium EDTA</td>
<td>64-02-8</td>
<td>2-5</td>
<td>Ethylenediaminetetraacetic acid</td>
</tr>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>1-3</td>
<td>Caustic soda</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>1310-58-3</td>
<td>1-3</td>
<td>Caustic Potash</td>
</tr>
</tbody>
</table>

Notes
The specific chemical identity and/or exact percentage of composition (concentration) has been withheld as a trade secret.

**SECTION 4. FIRST-AID MEASURES**

First-aid Measures

**Inhalation**
Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Get medical advice/attention if you feel unwell or are concerned.

**Skin Contact**
Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Clean clothing, shoes and leather goods. If skin irritation occurs get medical advice/attention.

**Eye Contact**
Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. Immediately call a Poison Centre or doctor.

**Ingestion**
Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. Drink large amounts of water. Immediately call a Poison Centre or doctor.

**Most Important Symptoms and Effects, Acute and Delayed**
If on skin: may cause moderate to severe irritation. Repeated or prolonged exposure can irritate the skin. Symptoms include pain, redness, and swelling. If in eyes: causes moderate to severe irritation. Symptoms include sore, red eyes, and tearing.

**Immediate Medical Attention and Special Treatment**
- **Target Organs**
  - Eyes, skin.
- **Special Instructions**
  - Rinse affected area (skin, eyes) thoroughly with water.
- **Medical Conditions Aggravated by Exposure**
  - None known.

**SECTION 5. FIRE-FIGHTING MEASURES**

**Extinguishing Media**
- **Suitable Extinguishing Media**
  - Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.
- **Unsuitable Extinguishing Media**
  - None known.

**Specific Hazards Arising from the Chemical**
Review Section 10 (Stability and Reactivity) for additional information.
- Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; products of incomplete combustion.
Special Protective Equipment and Precautions for Fire-fighters
Review Section 6 (Accidental Release Measures) for important information on responding to leaks/spills. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures
Use the personal protective equipment recommended in Section 8 of this safety data sheet.

Environmental Precautions
Concentrated product: it is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up
Review Section 7 (Handling) of this safety data sheet before proceeding with clean-up.
Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.
Large spills or leaks: dike spilled product to prevent runoff.
Review Section 13 (Disposal Considerations) of this safety data sheet. Contact emergency services and manufacturer/supplier for advice.

Other Information
Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling
Wear personal protective equipment to avoid direct contact with this chemical. See Section 13 (Disposal Considerations) of this safety data sheet.

Conditions for Safe Storage
Store in an area that is: cool, dry, separate from incompatible materials (see Section 10: Stability and Reactivity). Keep out of reach of children. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV®</th>
<th>OSHA PEL</th>
<th>AIHA WEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>Ceiling</td>
</tr>
<tr>
<td>Sodium Hydroxide</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 mg/m3 C</td>
<td>2 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>2 mg/m3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls
General ventilation is usually adequate. Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection
Wear chemical safety goggles.

Skin Protection
Wear chemical protective clothing e.g. gloves, aprons, boots.
Suitable materials are: polyvinyl chloride, neoprene rubber, latex rubber.

Respiratory Protection
Not normally required if product is used as directed.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Light green liquid.</td>
</tr>
<tr>
<td>Odour</td>
<td>Green Apple</td>
</tr>
</tbody>
</table>

Product Identifier: PLS-51
SDS No.: Ver. 2 (August 18, 2017)
Date of Preparation: July 20, 2015
Odour Threshold
Not available

pH
12.9 - 13.5

Melting Point/Freezing Point
Not available (melting); Not available (freezing)

Initial Boiling Point/Range
212 ºF (100 ºC)

Flash Point
Not applicable

Evaporation Rate
Not available

Flammability (solid, gas)
Not available

Upper/Lower Flammability or Explosive Limit
Not applicable (upper); Not applicable (lower)

Vapour Pressure
Not applicable

Vapour Density (air = 1)
Not available

Relative Density (water = 1)
1.1

Solubility
Soluble in water

Partition Coefficient, n-Octanol/Water (Log Kow)
Not available

Auto-ignition Temperature
Not available

Decomposition Temperature
Not available

Viscosity
Not available (kinematic)

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Not reactive.

Chemical Stability
Normally stable.

Possibility of Hazardous Reactions
None known.

Conditions to Avoid
Incompatible materials.

Incompatible Materials
Strong oxidizing agents (e.g. perchloric acid), strong reducing agents (e.g. hydrides).

Hazardous Decomposition Products
None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure
Inhalation; skin contact; eye contact; ingestion.

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50</th>
<th>LD50 (oral)</th>
<th>LD50 (dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>&gt; 1-5 mg/L (rat) (4-hour exposure)</td>
<td>1780 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td></td>
<td>1153 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide</td>
<td>500 mg/kg (rabbit)</td>
<td>1350 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>52-206 mg/L (rat)</td>
<td>2079-2340 mg/kg (rat)</td>
<td>6300-160000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>365 mg/kg (rat)</td>
<td>&gt; 1260 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td>Alcohols, C9-11, ethoxylated, liquids</td>
<td>1378 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Skin Corrosion/Irritation

Product Identifier: PLS-51
SDS No.:        Ver. 2 (August 18, 2017)
Date of Preparation: July 20, 2015
Skin Corrosion/Irritation

Human experience shows moderate or severe irritation.

Serious Eye Damage/Irritation

Human experience shows serious eye irritation. Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

When misted may cause nose and throat irritation, lung irritation.

Ingestion

May cause irritation of the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Symptoms may include dry, red, cracked skin (dermatitis).

Respiratory and/or Skin Sensitization

No information was located.

Carcinogenicity

Contains 2-butoxyethanol. (2-butoxyethanol) IARC: Group 3 – Not classifiable as to its carcinogenicity to humans.

ACGIH®: A3 – Confirmed animal carcinogen.

Reproductive Toxicity

Development of Offspring

No indication from ingredients.

Sexual Function and Fertility

No indication from ingredients.

Effects on or via Lactation

No indication from ingredients.

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

All components of this product are biodegradable by Regulation (EC) No 648/2004.

Toxicity

Acute Aquatic Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LC50 Fish</th>
<th>EC50 Crustacea</th>
<th>ErC50 Aquatic Plants</th>
<th>ErC50 Algae</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrasodium EDTA</td>
<td>34-62 mg/L</td>
<td>113 mg/L</td>
<td>(Daphnia magna (water flea); 48-hour; static)</td>
<td></td>
</tr>
<tr>
<td>(Lepomis macrochirus (bluegill); 96-hour; static)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Metasilicate</td>
<td>210 mg/L (96-hour)</td>
<td>216 mg/L (96-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide</td>
<td>45.4 mg/L</td>
<td>100 mg/L</td>
<td>(Daphnia magna (water flea); 48-hour)</td>
<td></td>
</tr>
<tr>
<td>(Oncorhynchus mykiss (rainbow trout); 96-hour; static)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>3.5-5 mg/L (96-hour)</td>
<td>4.53 (Daphnia magna (water flea); 48-hour)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>80 mg/L (96-hour)</td>
<td>56 mg/L (48-hour)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Product Identifier: PLS-51
SDS No.: Ver. 2 (August 18, 2017)
Date of Preparation: July 20, 2015

Page 05 of 07
Persistence and Degradability

(Tetrasodium EDTA) By using samples from a river, a ditch and a lake as inocula in the closed bottle test, a biodegradation between 60 and 83% was obtained after 49 days at pH 6.5, whereas between 53 and 72% were obtained after 28 days at pH 8.0.

### SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Review federal, state/provincial, and local government requirements prior to disposal.

### SECTION 14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Regulation</th>
<th>UN No.</th>
<th>Proper Shipping Name</th>
<th>Transport Hazard Class(es)</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian TDG</td>
<td>3266</td>
<td>CORROSIVE LIQUID, Basic, Inorganic (Sodium Metasilicate, Sodium Hydroxide)</td>
<td>Class 8</td>
<td>III</td>
</tr>
<tr>
<td>US DOT</td>
<td>3266</td>
<td>CORROSIVE LIQUID, Basic, Inorganic (Sodium Metasilicate, Sodium Hydroxide)</td>
<td>Class 8</td>
<td>III</td>
</tr>
</tbody>
</table>

Special Precautions for User:

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

### SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)
All ingredients are listed on the DSL/NDSL.

USA

Toxic Substances Control Act (TSCA) Section 8(b)
All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

Additional USA Regulatory Lists

SARA Title III - Section 313: 2-butoxyethanol (CAS: 111-76-2).
New Jersey Right To Know: Sodium Hydroxide (CAS: 1310-73-2); Potassium hydroxide (CAS: 1310-58-3); 2-butoxyethanol (CAS: 111-76-2).
California Proposition 65: No listed substances are known to be present.

### SECTION 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA Rating</th>
<th>SDS Prepared By</th>
<th>Date of Preparation</th>
<th>Revision Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health - 2</td>
<td>Technical Group</td>
<td>July 20, 2015</td>
<td>SECTION 1. IDENTIFICATION; Other Means of Identification. SECTION 2. HAZARDS IDENTIFICATION; GHS Classification; GHS Label Elements.</td>
</tr>
</tbody>
</table>

SDS No.: Ver. 2 (August 18, 2017)  
Date of Preparation: July 20, 2015
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS; Ingredient Information.
SECTION 4. FIRST-AID MEASURES; Eye Contact.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION; Control Parameters; Respiratory Protection.
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values; Ingestion; Carcinogenicity.
SECTION 12. ECOLOGICAL INFORMATION; Acute Aquatic Toxicity; Chronic Aquatic Toxicity.
SECTION 15. REGULATORY INFORMATION; Toxic Substances Control Act (TSCA) Section 8(b).

Disclaimer
The information contained here in has been compiled from sources believed to be reliable and is accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Recipient assumes all responsibility for the use of this information and the use, storage, or disposal of the product, including any resultant personal injury or property damage.
1 – PRODUCT IDENTIFICATION

PRODUCT NAME: ................. Kleen Rite Oatmeal Shampoo
PRODUCT TYPE: ................. Neutral Liquid Cleaning Compound
PRODUCT NUMBER: ............ K1650XXX (Last 3 characters vary with the packaging)
CONTROL NUMBER: ............. K1650XXX

COMPANY: ......................... Simoniz USA, Inc.
201 Boston Turnpike
Bolton, CT 06043
1-800-227-5536
www.simoniz.com

EMERGENCY PHONE: .......... (800) 255-3924 (CHEM-TEL)

2 – HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE/MIXTURE: ..... Eye Irritation (2B)

SYMBOLS: ..........................

SIGNAL WORD: ..................... WARNING!

HAZARD STATEMENT: ........... Causes eye irritation.

PRECAUTIONARY STATEMENTS:
PREVENTION: ............... Wash hands thoroughly after handling.
RESPONSE: ..................... IF IN EYES: Rinse cautiously with water for several minutes.
................................. Remove contact lenses if present and easy to do – continue rinsing.  If eye irritation persists get medical advice/attention.

STORAGE: ....................... N/A
DISPOSAL: ...................... N/A

3 – COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>C.A.S. NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
</tr>
<tr>
<td>Sodium Fatty Alcohol Sulfate</td>
<td>151-21-3</td>
</tr>
<tr>
<td>PEG-80 Glyceril Cocoate</td>
<td>68201-46-7</td>
</tr>
<tr>
<td>Sodium Alpha Olefin Sulphonate</td>
<td>68439-57-6</td>
</tr>
<tr>
<td>Hydrolyzed Oat Protein</td>
<td>73049-73-7</td>
</tr>
</tbody>
</table>

Percentages of ingredients are being withheld as trade secret information. This information will be disclosed as necessary to authorized individuals.
4 – FIRST-AID MEASURES

BREATHING (INHALATION): ... If victim shows signs of discomfort or irritation, remove to fresh air. If symptoms persist, get immediate medical attention.

SWALLOWING (INGESTION): ... DO NOT INDUCE VOMITING! Drink a large quantity of water or milk. Do not attempt to give liquids to an unconscious person. Get immediate medical attention!

EYES: ................................ Flush eyes with a large quantity of fresh water for at least 15 minutes. If irritation persists, consult a physician.

SKIN (DERMAL): ..................... Not likely to irritate. Flush from skin with fresh water and discontinue use if irritation persists.

5 – FIRE-FIGHTING MEASURES

FLASHPOINT: ..................... This product is non-flammable.
EXTINGUISHING MEDIA: .............. This product is non-flammable. Use extinguishing media suitable for materials already burning.
SPECIAL FIRE FIGHTING PROCEDURES: .............. Firefighters working in areas where this product is present should be equipped with an approved, fully enclosed SCBA.
UNUSUAL FIRE AND EXPLOSION HAZARDS: ........... None known.

6 – ACCIDENTAL RELEASE MEASURES

SPILL PROCEDURES: .............. Dike to prevent spillage into streams or sewer systems. Consult local, state and federal authorities.
WASTE DISPOSAL: ............... As recommended by local, state and federal authorities.

7 – HANDLING and STORAGE

STORAGE: ......................... Store in a cool, well ventilated area. Avoid overheating or freezing.
HANDLING: ......................... Do not place this product in an unmarked container. Avoid eye contact. Spilled material is slippery.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY PROTECTION: Not usually needed. Vapors not normally harmful.
PROTECTIVE CLOTHING: ........... Special protection not usually needed. Wear eye protection if product is likely to splash.
ADDITIONAL MEASURES: ........... Do not place this product in an unmarked container. Avoid eye contact. Spilled material is slippery.
Safety Data Sheet

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>C.A.S. NUMBER</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>No limits established</td>
</tr>
<tr>
<td>Sodium Fatty Alcohol Sulfate</td>
<td>151-21-3</td>
<td>No limit established</td>
</tr>
<tr>
<td>PEG-80 Glyceryl Cocoate</td>
<td>68201-46-7</td>
<td>No limits established</td>
</tr>
<tr>
<td>Sodium Alpha Olefin Sulfonate</td>
<td>68439-57-6</td>
<td>No limits established</td>
</tr>
<tr>
<td>Hydrolyzed Oat Protein</td>
<td>73049-73-7</td>
<td>No limits established</td>
</tr>
</tbody>
</table>

9 – PHYSICAL / CHEMICAL PROPERTIES

APPEARANCE & ODOR: ......... Transparent liquid, pleasantly scented.
ODOR THRESHOLD: ............ N/A
pH: ................................ 5.0-6.0
MELTING POINT: ............. N/A
FREEZING POINT: ............. N/A
BOILING POINT: ............. 210 degrees F.
BOILING POINT RANGE: ........ N/A
FLASHPOINT: .................. This product is non-flammable.
EVAPORATION RATE: .......... N/A
FLAMMABILITY (solid/gas): ... N/A
EXPLOSION LIMITS: .......... N/A
VAPOR PRESSURE: ............. N/A
VAPOR DENSITY (AIR=1): ...... Greater than 1.
SPECIFIC GRAVITY: .......... 1.01
SOLUBILITY IN WATER: ........ Completely soluble.
PARTITION COEFFICIENT: ..... N/A
AUTO-IGNITION TEMPERATURE: ............. N/A
DECOMPOSITION TEMPERATURE: ............. N/A
VISCOSITY: .................. Water thin

10 – STABILITY and REACTIVITY

STABILITY: ...................... Stable under normal conditions.
HAZARDOUS DECOMP.: .......... This product not known to polymerize.
INCOMPATIBILITY: ............. Do not mix with other chemicals.

11 – TOXICOLOGICAL INFORMATION

ROUTE(S) OF ENTRY: ........... Ingestion. Not likely to be inhaled in dangerous amounts.
LISTED CARCINOGEN: ........... None over 0.1%.
MEDICAL CONDITION AGGRAVATED: ............... Preexisting skin and eye disorders may be aggravated by the extended daily use of this product.
INHALATION: ................... Not likely to be inhaled in hazardous amounts. Maintain adequate ventilation in the work area.
INGESTION: .................... This material can cause irritation to the stomach and esophagus if ingested.
EYES: .......................... May cause eye irritation.
SKIN (DERMAL): Not likely to irritate. Prolonged exposure to undiluted product may cause irritation.

ACUTE TOXICITY* (ORAL): >2000 mg/kg
ACUTE TOXICITY* (DERMAL): >2000 mg/kg
ACUTE TOXICITY* (INHALATION): >20,000 ppm V (Gas), >20 mg/l (Vapor), >5 mg/l (Dust)

* Determined using the additivity formula for mixtures (GHS Purple Book, 3.1.3.6)

12 – ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND DISTRIBUTION: N/A

13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: As recommended by local, state and federal authorities.

14 – TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: Not D.O.T. regulated.
HAZARD CLASS:
UN/NA NUMBER:
PACKAGING GROUP:

15 - REGULATIONS

Contents of this SDS comply with the OSHA Hazard Communication Standard 29CFR 1910.1200

16 – OTHER INFORMATION

NFPA HEALTH: 1
NFPA FLAMMABILITY: 0
NFPA REACTIVITY: 0
NFPA OTHER: None

ADDITIONAL: The information contained in this SDS is based on the data available to us from sources we believe to be reliable. No warranty or guaranty expressed or implied is made regarding the accuracy of this data or the results obtained from the reliance on this data. The manufacturer assumes no responsibility for injury from the use of this product. Be safe - read this product safety information and pass it on to all persons who may be exposed to this product. Federal law requires it. This product and/or all of its components are either included on or exempt from the TSCA Inventory of Chemical Substances.

REVISION DATE: 6/10/16
## 1 – PRODUCT IDENTIFICATION

**PRODUCT NAME:** Kleen Rite Creme Rinse  
**PRODUCT TYPE:** Neutral Liquid Cleaning Compound  
**PRODUCT NUMBER:** K1652XXX (Last 3 characters vary with the packaging)  
**CONTROL NUMBER:** K1652XXX

**COMPANY:** Simoniz USA, Inc.  
201 Boston Turnpike  
Bolton, CT 06043  
1-800-227-5536  
[www.simoniz.com](http://www.simoniz.com)  
**EMERGENCY PHONE:** (800) 255-3924 (CHEM-TEL)

## 2 – HAZARDS IDENTIFICATION

**CLASSIFICATION OF SUBSTANCE/MIXTURE:** Skin Irritation (2)  
Eye Irritation (2A)

**SYMBOLS:**

![Warning Symbol]

**SIGNAL WORD:** WARNING!  
**HAZARD STATEMENT:** Causes skin irritation. Causes serious eye irritation

**PRECAUTIONARY STATEMENTS:**

**PREVENTION:** Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

**RESPONSE:** IF ON SKIN: Wash with plenty of water and soap. Specific treatment (see First AID Section on this label). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.

**STORAGE:** N/A  
**DISPOSAL:** N/A

## 3 – COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>C.A.S. NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
</tr>
<tr>
<td>Quaternary Ammonium Chloride Compound</td>
<td>Mixture</td>
</tr>
</tbody>
</table>

PAGE 1 of 4
Percentages of ingredients are being withheld as trade secret information. This information will be disclosed as necessary to authorized individuals.

4 – FIRST-AID MEASURES

BREATHING (INHALATION):... If victim shows signs of discomfort or irritation, remove to fresh air. If symptoms persist, get immediate medical attention.

SWALLOWING (INGESTION):... DO NOT INDUCE VOMITING! Drink a large quantity of water or milk. Do not attempt to give liquids to an unconscious person. Get immediate medical attention!

EYES:.................................. Flush eyes with a large quantity of fresh water for at least 15 minutes. If irritation persists, consult a physician.

SKIN (DERMAL): ..................... Not likely to irritate. Flush from skin with fresh water and discontinue use if irritation persists.

5 – FIRE-FIGHTING MEASURES

FLASHPOINT:......................... This product is non-flammable.

EXTINGUISHING MEDIA:........... This product is non-flammable. Use extinguishing media suitable for materials already burning.

SPECIAL FIRE FIGHTING PROCEDURES:.......... Firefighters working in areas where this product is present should be equipped with an approved, fully enclosed SCBA.

UNUSUAL FIRE AND EXPLOSION HAZARDS:....... None known.

6 – ACCIDENTAL RELEASE MEASURES

SPILL PROCEDURES:............ Dike to prevent spillage into streams or sewer systems. Consult local, state and federal authorities.

WASTE DISPOSAL:.............. As recommended by local, state and federal authorities.

7 – HANDLING and STORAGE

STORAGE:............................. Store in a cool, well ventilated area. Avoid overheating or freezing.

HANDLING:........................... Do not place this product in an unmarked container. Avoid eye contact. Spilled material is slippery.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY PROTECTION:Not usually needed. Vapors not normally harmful.

PROTECTIVE CLOTHING:....... Special protection not usually needed. Wear eye protection if product is likely to splash.
ADDITIONAL MEASURES: Do not place this product in an unmarked container. Avoid eye contact. Spilled material is slippery.

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>C.A.S. NUMBER</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>No limits established</td>
</tr>
<tr>
<td>Quaternary Ammonium Chloride Compound mixture</td>
<td></td>
<td>No limits established</td>
</tr>
<tr>
<td>PEG-80 Glyceryl Cocoate</td>
<td>68201-46-7</td>
<td>No limits established</td>
</tr>
</tbody>
</table>

9 – PHYSICAL / CHEMICAL PROPERTIES

APPEARANCE & ODOR: Slightly viscous white liquid, pleasantly scented.
ODOR THRESHOLD: N/A
pH: 5.0-6.0
MELTING POINT: N/A
FREEZING POINT: N/A
BOILING POINT: 210 degrees F.
BOILING POINT RANGE: N/A
FLASHPOINT: This product is non-flammable.
EVAPORATION RATE: N/A
FLAMMABILITY (solid/gas): N/A
EXPLOSION LIMITS: N/A
VAPOR PRESSURE: N/A
VAPOR DENSITY (AIR=1): Greater than 1.
SPECIFIC GRAVITY: 1.02
SOLUBILITY IN WATER: Completely soluble.
PARTITION COEFFICIENT: N/A
AUTO-IGNITION TEMPERATURE: N/A
DECOMPOSITION TEMPERATURE: N/A
VISCOITY: Significant body

10 – STABILITY and REACTIVITY

STABILITY: Stable under normal conditions.
HAZARDOUS DECOMP.: This product not known to polymerize.
INCOMPATIBILITY: Do not mix with other chemicals.

11 – TOXICOLOGICAL INFORMATION

ROUTE(S) OF ENTRY: Ingestion. Not likely to be inhaled in dangerous amounts.
LISTED CARCINOGEN: None over 0.1%.
MEDICAL CONDITION AGGRAVATED: May aggravate pre-existing dermatitis.
INHALATION: Not likely to be inhaled in hazardous amounts. Maintain adequate ventilation in the work area.
INGESTION: This material can cause irritation to the stomach and esophagus if ingested.
EYES: May cause eye irritation.
SKIN (DERMAL): Not likely to irritate. Prolonged exposure to undiluted product may cause irritation.

ACUTE TOXICITY* (ORAL): >2000 mg/kg

ACUTE TOXICITY* (DERMAL): >2000 mg/kg

ACUTE TOXICITY* (INHALATION): >20,000 ppm V (Gas), >20 mg/l (Vapor), >5 mg/l (Dust)

* Determined using the additivity formula for mixtures (GHS Purple Book, 3.1.3.6)

12 – ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND DISTRIBUTION: N/A

13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: As recommended by local, state and federal authorities.

14 – TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: Not D.O.T. regulated.
HAZARD CLASS: UN/NA NUMBER: PACKAGING GROUP:

15 – REGULATIONS

Contents of this SDS comply with the OSHA Hazard Communication Standard 29CFR 1910.1200

16 – OTHER INFORMATION

NFPA HEALTH: 1
NFPA FLAMMABILITY: 0
NFPA REACTIVITY: 0
NFPA OTHER: None

ADDITIONAL: The information contained in this SDS is based on the data available to us from sources we believe to be reliable. No warranty or guaranty expressed or implied is made regarding the accuracy of this data or the results obtained from the reliance on this data. The manufacturer assumes no responsibility for injury from the use of this product. Be safe - read this product safety information and pass it on to all persons who may be exposed to this product. Federal law requires it. This product and/or all of its components are either included on or exempt from the TSCA Inventory of Chemical Substances.

REVISION DATE: 4/09/16

PAGE 4 of 4
1 – PRODUCT IDENTIFICATION

PRODUCT NAME: .................... Kleen Rite Concentrated Shampoo
PRODUCT TYPE: .................... Neutral Liquid Cleaning Compound
PRODUCT NUMBER: ............... K1651XXX (Last 3 characters vary with the packaging)
CONTROL NUMBER: .............. K1651XXX

COMPANY: ............................ Simoniz USA, Inc.
201 Boston Turnpike
Bolton, CT 06043
1-800-227-5536
www.simoniz.com

EMERGENCY PHONE: ............ (800) 255-3924 (CHEM-TEL)

2 – HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE/MIXTURE:..... Eye Irritation (2B)

SYMBOLS:..........................

SIGNAL WORD:..................... WARNING!
HAZARD STATEMENT:............. Causes eye irritation.

PRECAUTIONARY STATEMENTS:
PREVENTION: ...................... Wash hands thoroughly after handling.
RESPONSE: ......................... IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.
STORAGE: ......................... N/A
DISPOSAL: ....................... N/A

3 – COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>C.A.S. NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
</tr>
<tr>
<td>Sodium Fatty Alcohol Sulfate</td>
<td>151-21-3</td>
</tr>
<tr>
<td>Sodium Alpha Olefin Sulfonate</td>
<td>68439-57-6</td>
</tr>
<tr>
<td>Lauramide DEA</td>
<td>120-40-1</td>
</tr>
<tr>
<td>Cocoamidopropyl Betaine</td>
<td>61789-40-0</td>
</tr>
</tbody>
</table>

Percentages of ingredients are being withheld as trade secret information. This information will be disclosed as necessary to authorized individuals.
4 – FIRST-AID MEASURES

BREATHING (INHALATION): ... If victim shows signs of discomfort or irritation, remove to fresh air. If symptoms persist, get immediate medical attention.

SWALLOWING (INGESTION): ... DO NOT INDUCE VOMITING! Drink a large quantity of water or milk. Do not attempt to give liquids to an unconscious person. Get immediate medical attention!

EYES: .................................. Flush eyes with a large quantity of fresh water for at least 15 minutes. If irritation persists, consult a physician.

SKIN (DERMAL): .......................... Not likely to irritate. Flush from skin with fresh water and discontinue use if irritation persists.

5 – FIRE-FIGHTING MEASURES

FLASHPOINT: ....................... This product is non-flammable.

EXTINGUISHING MEDIA: ............. This product is non-flammable. Use extinguishing media suitable for materials already burning.

SPECIAL FIRE FIGHTING PROCEDURES: ........ Firefighters working in areas where this product is present should be equipped with an approved, fully enclosed SCBA.

UNUSUAL FIRE AND EXPLOSION HAZARDS: .... None known.

6 – ACCIDENTAL RELEASE MEASURES

SPILL PROCEDURES: ............. Dike to prevent spillage into streams or sewer systems. Consult local, state and federal authorities.

WASTE DISPOSAL: .............. As recommended by local, state and federal authorities.

7 – HANDLING and STORAGE

STORAGE: ......................... Store in a cool, well ventilated area. Avoid overheating or freezing.

HANDLING: ......................... Do not place this product in an unmarked container. Avoid eye contact. Spilled material is slippery.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY PROTECTION: Not usually needed. Vapors not normally harmful.

PROTECTIVE CLOTHING: ........ Special protection not usually needed. Wear eye protection if product is likely to splash.

ADDITIONAL MEASURES: ...... Do not place this product in an unmarked container. Avoid eye contact. Spilled material is slippery.
INGREDIENT | C.A.S. NUMBER | PEL
---|---|---
Water | 7732-18-5 | No limits established
Sodium Fatty Alcohol Sulfate | 151-21-3 | No limit established
Sodium Alpha Olefin Sulfonate | 68439-57-6 | No limits established
Lauramide DEA | 120-40-1 | No limits established
Cocoamidopropyl Betaine | 61789-40-0 | No limits established

9 – PHYSICAL / CHEMICAL PROPERTIES

APPEARANCE & ODOR: Slightly viscous pink liquid, herbal scented.
PH: 5.5-7.0
MELTING POINT: N/A
FREEZING POINT: N/A
BOILING POINT: 210 degrees F.
FLASHPOINT: This product is non-flammable.
EVAPORATION RATE: N/A
FLAMMABILITY (solid/gas): N/A
EXPLOSION LIMITS: N/A
VAPOR PRESSURE: N/A
VAPOR DENSITY (AIR=1): Greater than 1.
SPECIFIC GRAVITY: 1.02
SOLUBILITY IN WATER: Completely soluble.
PARTITION COEFFICIENT: N/A
AUTO-IGNITION TEMPERATURE: N/A
DECOMPOSITION TEMPERATURE: N/A
VISCOSITY: Water thin

10 – STABILITY and REACTIVITY

STABILITY: Stable under normal conditions.
HAZARDOUS DECOMP.: This product not known to polymerize.
INCOMPATIBILITY: Do not mix with other chemicals.

11 – TOXICOLOGICAL INFORMATION

ROUTE(S) OF ENTRY: Ingestion. Not likely to be inhaled in dangerous amounts.
LISTED CARCINOGEN: None over 0.1%.
MEDICAL CONDITION AGGRAVATED: Preexisting skin and eye disorders may be aggravated by the use of this product.
INHALATION: Not likely to be inhaled in hazardous amounts. Maintain adequate ventilation in the work area.
INGESTION: This material can cause irritation to the stomach and esophagus if ingested.
EYES: May cause eye irritation.
SKIN (DERMAL): Not likely to irritate. Prolonged exposure to undiluted product may cause irritation.
ACUTE TOXICITY* (ORAL): >2000 mg/kg
ACUTE TOXICITY* (DERMAL): >2000 mg/kg
ACUTE TOXICITY* (INHALATION): >20,000 ppm V (Gas), >20 mg/l (Vapor), >5 mg/l (Dust)

*Determined using the additivity formula for mixtures (GHS Purple Book, 3.1.3.6)

12 – ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND DISTRIBUTION: N/A

13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: As recommended by local, state and federal authorities.

14 – TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: Not D.O.T. regulated.
HAZARD CLASS:
UN/NA NUMBER:
PACKAGING GROUP:

15 - REGULATIONS

Contents of this SDS comply with the OSHA Hazard Communication Standard 29CFR 1910.1200

16 – OTHER 6

NFPA HEALTH: 1
NFPA FLAMMABILITY: 0
NFPA REACTIVITY: 0
NFPA OTHER: None

ADDITIONAL: The information contained in this SDS is based on the data available to us from sources we believe to be reliable. No warranty or guaranty expressed or implied is made regarding the accuracy of this data or the results obtained from the reliance on this data. The manufacturer assumes no responsibility for injury from the use of this product. Be safe - read this product safety information and pass it on to all persons who may be exposed to this product. Federal law requires it. This product and/or all of its components are either included on or exempt from the TSCA Inventory of Chemical Substances.

REVISION DATE: 6/09/16
1 – PRODUCT IDENTIFICATION

PRODUCT NAME: .................. Kleen Rite K-9 Cleaner Deodorizer
PRODUCT TYPE: .................. Neutral Liquid Cleaning Compound
PRODUCT NUMBER: .............. K1170XXX (Last 3 characters vary with the packaging)
CONTROL NUMBER: ............. K1170XXX

COMPANY: .......................... Simoniz USA, Inc.
201 Boston Turnpike
Bolton, CT 06043
1-800-227-5536
www.simoniz.com
EMERGENCY PHONE: .......... (800) 255-3924 (CHEM-TEL)

2 – HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE/MIXTURE: ...... Eye Irritation (2B)

SYMBOLS:...........................

SIGNAL WORD:..................... WARNING!
HAZARD STATEMENT:........... Causes eye irritation.
PRECAUTIONARY STATEMENTS:
PREVENTION: ............. Wash hands thoroughly after handling.
RESPONSE: ............. IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.
STORAGE: ............. N/A
DISPOSAL: ............. N/A

3 – COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT C.A.S. NUMBER
Water 7732-18-5
Sodium Fatty Alcohol Sulfate 151-21-3
Peppermint Oil 8006-90-4
Sodium Oleate 143-19-1

Percentages of ingredients are being withheld as trade secret information. This information will be disclosed as necessary to authorized individuals.
# Safety Data Sheet

## 4 – FIRST-AID MEASURES

**BREATHING (INHALATION):** If victim shows signs of discomfort or irritation, remove to fresh air. If symptoms persist, get immediate medical attention.

**SWALLOWING (INGESTION):** DO NOT INDUCE VOMITING! Drink a large quantity of water or milk. Do not attempt to give liquids to an unconscious person. Get immediate medical attention!

**EYES:** Flush eyes with a large quantity of fresh water for at least 15 minutes. If irritation persists, consult a physician.

**SKIN (DERMAL):** Flush from skin and clothing with large amounts of fresh water. If irritation persists, consult physician. Wash contaminated clothing before wearing.

## 5 – FIRE-FIGHTING MEASURES

**FLASHPOINT:** This product is non-flammable.

**EXTINGUISHING MEDIA:** This product is non-flammable. Use extinguishing media suitable for materials already burning.

**SPECIAL FIRE FIGHTING PROCEDURES:** Firefighters working in areas where this product is present should be equipped with an approved, fully enclosed SCBA.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** None known.

## 6 – ACCIDENTAL RELEASE MEASURES

**SPILL PROCEDURES:** Dike to prevent spillage into streams or sewer systems. Consult local, state and federal authorities.

**WASTE DISPOSAL:** As recommended by local, state and federal authorities.

## 7 – HANDLING and STORAGE

**STORAGE:** Store in a cool, well ventilated area. Avoid overheating or freezing.

**HANDLING:** Under normal use according to label instructions, special protection should not be necessary. Wear eye protection if product is likely to splash. Do not place this product in an unmarked container! Keep away from children! Spilled material is slippery.

## 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

**RESPIRATORY PROTECTION:** Not usually needed in well-ventilated areas. If needed, use a NIOSH approved respirator.

**PROTECTIVE CLOTHING:** Nitrile or PVC gloves, and chemical splash goggles.

**ADDITIONAL MEASURES:** Under normal use according to label instructions, special protection should not be necessary. Wear eye protection if product is likely to splash. Do not place this product in an
unmarked container! Keep away from children! Spilled material is slippery.

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>C.A.S. NUMBER</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>No limits established</td>
</tr>
<tr>
<td>Sodium Fatty Alcohol Sulfate</td>
<td>151-21-3</td>
<td>No limit established</td>
</tr>
<tr>
<td>Peppermint Oil</td>
<td>8006-90-4</td>
<td>No limits established</td>
</tr>
<tr>
<td>Sodium Oleate</td>
<td>143-19-1</td>
<td>No limits established</td>
</tr>
</tbody>
</table>

9 – PHYSICAL / CHEMICAL PROPERTIES

APPEARANCE & ODOR: .......... Transparent liquid, mint scented.
ODOR threshold: ............ N/A
pH: ......................... 7.5-9.0
MEETING POINT: ............. N/A
FREEZING POINT: ............. N/A
BOILING POINT: .............. 210 degrees F.
BOILING POINT RANGE: ........ N/A
FLASHPOINT: .................. This product is non-flammable.
EVAPORATION RATE: .......... N/A
FLAMMABILITY (solid/gas): ... N/A
EXPLOSION LIMITS: ........... N/A
VAPOR PRESSURE: ............. N/A
VAPOR DENSITY (AIR=1): .... Greater than 1.
SPECIFIC GRAVITY: .......... 1.00
SOLUBILITY IN WATER: ........ Completely soluble.
PARTITION COEFFICIENT: .... N/A
AUTO-IGNITION TEMPERATURE: .. N/A
DECOMPOSITION TEMPERATURE: .. N/A
VISCOITY: .................... Water thin

10 – STABILITY and REACTIVITY

STABILITY: .................... Stable under normal conditions.
HAZARDOUS DECOMP.: ........ This product not known to polymerize.
INCOMPATIBILITY: ............. Do not mix with other chemicals.

11 – TOXICOLOGICAL INFORMATION

ROUTE(S) OF ENTRY: .......... Ingestion. Not likely to be inhaled in dangerous amounts.
LISTED CARCINOGEN: ........... None over 0.1%.
MEDICAL CONDITION AGGRAVATED: .................. May aggravate pre-existing dermatitis.
INHALATION: ................... Not likely to be inhaled in hazardous amounts. Maintain adequate ventilation in the work area.
INGESTION: .................... This material can cause irritation or damage to stomach and esophagus.
EYES:                      May cause severe eye irritation.
SKIN (DERMAL):          This product may cause irritation or redness of the skin.
ACUTE TOXICITY* (ORAL):>2000 mg/kg
ACUTE TOXICITY* (DERMAL):>2000 mg/kg
ACUTE TOXICITY* (INHALATION):>20,000 ppm V (Gas), >20 mg/l (Vapor), >5 mg/l (Dust)

* Determined using the additivity formula for mixtures (GHS Purple Book, 3.1.3.6)

12 – ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND DISTRIBUTION: N/A

13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: As recommended by local, state and federal authorities.

14 – TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: Not D.O.T. regulated.
HAZARD CLASS: 
UN/NA NUMBER: 
PACKAGING GROUP: 

15 - REGULATIONS

Contents of this SDS comply with the OSHA Hazard Communication Standard 29CFR 1910.1200

16 – OTHER INFORMATION

NFPA HEALTH: 1
NFPA FLAMMABILITY: 0
NFPA REACTIVITY: 0
NFPA OTHER: None

ADDITIONAL: The information contained in this SDS is based on the data available to us from sources we believe to be reliable. No warranty or guaranty expressed or implied is made regarding the accuracy of this data or the results obtained from the reliance on this data. The manufacturer assumes no responsibility for injury from the use of this product. Be safe- read this product safety information and pass it on to all persons who may be exposed to this product. Federal law requires it. This product and/or all of its components are either included on or exempt from the TSCA Inventory of Chemical Substances.

REVISION DATE: 5/10/16
1 – PRODUCT IDENTIFICATION

PRODUCT NAME: ................. Kleen Rite Flea & Tick Shampoo
PRODUCT TYPE: .................. Safe Shampoo for Pets
PRODUCT NUMBER: ............. K1654XXX (Last 3 characters vary with the packaging)
CONTROL NUMBER: ............. K1654XXX

COMPANY: ....................... Simoniz USA, Inc.
201 Boston Turnpike
Bolton, CT 06043
1-800-227-5536
www.simoniz.com

EMERGENCY PHONE: ........... (800) 255-3924 (CHEM-TEL)

2 – HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE/MIXTURE: ..... Eye Irritation (2B)

SYMBOLES:..........................

SIGNAL WORD:...................... WARNING!

HAZARD STATEMENT:.............. Causes eye irritation.

PRECAUTIONARY STATEMENTS:
PREVENTION: ................. Wash hands thoroughly after handling.
RESPONSE: .................. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.   If eye irritation persists get medical advice/attention.

STORAGE: ..................... N/A
DISPOSAL: ..................... N/A

3 – COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>C.A.S. NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
</tr>
<tr>
<td>Sodium Lauryl Sulfate</td>
<td>151-21-3</td>
</tr>
<tr>
<td>Peppermint Oil</td>
<td>8006-90-4</td>
</tr>
<tr>
<td>Sodium Oleate</td>
<td>143-19-1</td>
</tr>
</tbody>
</table>

Percentages of ingredients are being withheld as trade secret information. This information will be disclosed as necessary to authorized individuals.
4 – FIRST-AID MEASURES

**BREATHING (INHALATION)**:... If victim shows signs of discomfort or irritation, remove to fresh air. If symptoms persist, get immediate medical attention.

**SWALLOWING (INGESTION)**: DO NOT INDUCE VOMITING! Drink a large quantity of water or milk. Do not attempt to give liquids to an unconscious person. Get immediate medical attention!

**EYES**: Flush eyes with a large quantity of fresh water for at least 15 minutes. If irritation persists, consult a physician.

**SKIN (DERMAL)**: Not likely to irritate. Flush from skin with fresh water and discontinue use if irritation persists.

5 – FIRE-FIGHTING MEASURES

**FLASHPOINT**: This product is non-flammable.

**EXTINGUISHING MEDIA**: This product is non-flammable. Use extinguishing media suitable for materials already burning.

**SPECIAL FIRE FIGHTING PROCEDURES**: Firefighters working in areas where this product is present should be equipped with an approved, fully enclosed SCBA.

**UNUSUAL FIRE AND EXPLOSION HAZARDS**: None known.

6 – ACCIDENTAL RELEASE MEASURES

**SPILL PROCEDURES**: Dike to prevent spillage into streams or sewer systems. Consult local, state and federal authorities.

**WASTE DISPOSAL**: As recommended by local, state and federal authorities.

7 – HANDLING and STORAGE

**STORAGE**: Store in a cool, well ventilated area. Avoid overheating or freezing.

**HANDLING**: Do not place this product in an unmarked container. Avoid eye contact. Spilled material is slippery.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

**RESPIRATORY PROTECTION**: Not usually needed. Vapors not normally harmful.

**PROTECTIVE CLOTHING**: Special protection not usually needed. Wear eye protection if product is likely to splash.

**ADDITIONAL MEASURES**: Do not place this product in an unmarked container. Avoid eye contact. Spilled material is slippery.
### INGREDIENTS

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<tr>
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<tr>
<td>Sodium Oleate</td>
<td>143-19-1</td>
<td>No limits established</td>
</tr>
</tbody>
</table>

### 9 – PHYSICAL / CHEMICAL PROPERTIES

**APPEARANCE & ODOR:** Slightly viscous transparent liquid, citrus scented.

**ODOR THRESHOLD:** N/A

**pH:** 8.0-9.0

**MELTING POINT:** N/A

**FREEZING POINT:** N/A

**BOILING POINT:** 210 degrees F.

**BOILING POINT RANGE:** N/A

**FLASHPOINT:** This product is non-flammable.

**EVAPORATION RATE:** N/A

**FLAMMABILITY (solid/gas):** N/A

**EXPLOSION LIMITS:** N/A

**VAPOR PRESSURE:** N/A

**VAPOR DENSITY (AIR=1):** Greater than 1.

**SPECIFIC GRAVITY:** 1.02

**SOLUBILITY IN WATER:** Completely soluble.

**PARTITION COEFFICIENT:** N/A

**AUTO-IGNITION TEMPERATURE:** N/A

**DECOMPOSITION TEMPERATURE:** N/A

**VISCOSITY:** Water thin

### 10 – STABILITY and REACTIVITY

**STABILITY:** Stable under normal conditions.

**HAZARDOUS DECOMP.:** This product not known to polymerize.

**INCOMPATIBILITY:** Do not mix with other chemicals.

### 11 – TOXICOLOGICAL INFORMATION

**ROUTE(S) OF ENTRY:** Ingestion. Not likely to be inhaled in dangerous amounts.

**LISTED CARCINOGEN:** None over 0.1%.

**MEDICAL CONDITION AGGRAVATED:** Preexisting skin and eye disorders may be aggravated by the use of this product.

**INHALATION:** Not likely to be inhaled in hazardous amounts. Maintain adequate ventilation in the work area.

**INGESTION:** This material can cause irritation to the stomach and esophagus if ingested.

**EYES:** May cause eye irritation.
SKIN (DERMAL): Not likely to irritate. Prolonged exposure to undiluted product may cause irritation.

ACUTE TOXICITY* (ORAL): >2000 mg/kg
ACUTE TOXICITY* (DERMAL): >2000 mg/kg
ACUTE TOXICITY* (INHALATION): >20,000 ppm V (Gas), >20 mg/l (Vapor), >5 mg/l (Dust)

* Determined using the additivity formula for mixtures (GHS Purple Book, 3.1.3.6)

ENVIRONMENTAL FATE AND DISTRIBUTION: N/A

WASTE DISPOSAL: As recommended by local, state and federal authorities.

PROPER SHIPPING NAME: Not D.O.T. regulated.
HAZARD CLASS:
UN/NA NUMBER:
PACKAGING GROUP:

Contents of this SDS comply with the OSHA Hazard Communication Standard 29CFR 1910.1200

NFPA HEALTH: 1
NFPA FLAMMABILITY: 0
NFPA REACTIVITY: 0
NFPA OTHER: None

ADDITIONAL: The information contained in this SDS is based on the data available to us from sources we believe to be reliable. No warranty or guaranty expressed or implied is made regarding the accuracy of this data or the results obtained from the reliance on this data. The manufacturer assumes no responsibility for injury from the use of this product. Be safe- read this product safety information and pass it on to all persons who may be exposed to this product. Federal law requires it. This product and/or all of its components are either included on or exempt from the TSCA Inventory of Chemical Substances.

REVISION DATE: 05/15/16
1 – PRODUCT IDENTIFICATION

PRODUCT NAME: .................... Kleen Rite Skunk Odor Remover
PRODUCT TYPE: .................... Neutral Liquid Cleaning Compound
PRODUCT NUMBER: ............... K1653XXX (Last 3 characters vary with the packaging)
CONTROL NUMBER: ............... K1653XXX

COMPANY: ......................... Simoniz USA, Inc.
201 Boston Turnpike
Bolton, CT 06043
1-800-227-5536
www.simoniz.com

EMERGENCY PHONE: .............. (800) 255-3924 (CHEM-TEL)

2 – HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE/MIXTURE: ..... Eye Irritation (2B)

SYMBOLS: .........................

SIGNAL WORD: ................... WARNING!
HAZARD STATEMENT: ............ Causes eye irritation.

PRECAUTIONARY STATEMENTS:

PREVENTION: ............... Wash hands thoroughly after handling.
RESPONSE: ................. IF IN EYES: Rinse cautiously with water for several minutes.
.......................... Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.
STORAGE: ................... N/A
DISPOSAL: ................... N/A

3 – COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
</tr>
<tr>
<td>Enzyme Blend</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Fragrance</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

Percentages of ingredients are being withheld as trade secret information. This information will be disclosed as necessary to authorized individuals.
4 – FIRST-AID MEASURES

BREATHING (INHALATION): ... If victim shows signs of discomfort or irritation, remove to fresh air. If symptoms persist, get immediate medical attention.

SWALLOWING (INGESTION): DO NOT INDUCE VOMITING! Drink a large quantity of water or milk. Do not attempt to give liquids to an unconscious person. Get immediate medical attention!

EYES: Flush eyes with a large quantity of fresh water for at least 15 minutes. If irritation persists, consult a physician.

SKIN (DERMAL): Not likely to irritate. Flush from skin with fresh water and discontinue use if irritation persists.

5 – FIRE-FIGHTING MEASURES

FLASHPOINT: This product is non-flammable.

EXTINGUISHING MEDIA: Use extinguishing media suitable for materials already burning.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters working in areas where this product is present should be equipped with an approved, fully enclosed SCBA.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

6 – ACCIDENTAL RELEASE MEASURES

SPILL PROCEDURES: Product should be picked up and reused or recycled.

WASTE DISPOSAL: As recommended by local, state and federal authorities.

7 – HANDLING and STORAGE

STORAGE: Store in a cool, well ventilated area. Avoid overheating or freezing.

HANDLING: Do not place this product in an unmarked container. Avoid eye contact. Spilled material is slippery.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

RESPIRATORY PROTECTION: Not usually needed. Vapors not normally harmful.

PROTECTIVE CLOTHING: Special protection not usually needed. Wear eye protection if product is likely to splash.

ADDITIONAL MEASURES: Do not place this product in an unmarked container. Avoid eye contact. Spilled material is slippery.
APPEARANCE & ODOR: ......... Amber transparent liquid, pleasantly scented.

ODOR THRESHOLD: ............ N/A

pH: ................................ 6.5-7.5

MELTING POINT: ............... N/A

FREEZING POINT: ............... N/A

BOILING POINT: .................. 210 degrees F.

BOILING POINT RANGE: ........ N/A

FLASHPOINT: ..................... This product is non-flammable.

EVAPORATION RATE: .......... N/A

FLAMMABILITY (solid/gas): ... N/A

EXPLOSION LIMITS: ............. N/A

VAPOR PRESSURE: ............... N/A

VAPOR DENSITY (AIR=1): ....... Greater than 1.

SPECIFIC GRAVITY: ............. 1.00

SOLUBILITY IN WATER: ........ Completely soluble.

PARTITION COEFFICIENT: ...... N/A

AUTO-IGNITION TEMPERATURE: ......... N/A

DECOMPOSITION TEMPERATURE: .......... N/A

VISCOSITY: ........................ Water thin

STABILITY: ........................ Stable under normal conditions.

HAZARDOUS DECOMP.: ....... This product not known to polymerize.

INCOMPATIBILITY: .............. Do not mix with other chemicals.

ROUTE(S) OF ENTRY: .......... Ingestion. Not likely to be inhaled in dangerous amounts.

LISTED CARCINOGEN: .......... None over 0.1%.

MEDICAL CONDITION AGGRAVATED: .............. Preexisting skin and eye disorders may be aggravated by the use of this product.

INHALATION: ........................ Not likely to be inhaled in hazardous amounts. Maintain adequate ventilation in the work area.

INGESTION: ........................ This material can cause irritation to the stomach and esophagus if ingested.

EYES: ............................. May cause eye irritation.

SKIN (DERMAL): ................... Not likely to irritate. Prolonged exposure to undiluted product may cause irritation.

ACUTE TOXICITY* (ORAL): ...... .......................... >2000 mg/kg
Safety Data Sheet

ACUTE TOXICITY* (DERMAL): .........................>2000 mg/kg
ACUTE TOXICITY* (INHALATION): ..................>20,000 ppm V (Gas), >20 mg/l (Vapor), >5 mg/l (Dust)

*Determined using the additivity formula for mixtures (GHS Purple Book, 3.1.3.6)

12 – ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND DISTRIBUTION: N/A

13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: ............... As recommended by local, state and federal authorities.

14 – TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: ...... Not D.O.T. regulated.
HAZARD CLASS: ..................
UN/NA NUMBER: ............... 
PACKAGING GROUP: ...........

15 - REGULATIONS

Contents of this SDS comply with the OSHA Hazard Communication Standard 29CFR 1910.1200

16 – OTHER INFORMATION

NFPA HEALTH: ................. 1
NFPA FLAMMABILITY: .......... 0
NFPA REACTIVITY: ............. 0
NFPA OTHER: .................. None

ADDITIONAL:..................... The information contained in this SDS is based on the data available to us from sources we believe to be reliable. No warranty or guaranty expressed or implied is made regarding the accuracy of this data or the results obtained from the reliance on this data. The manufacturer assumes no responsibility for injury from the use of this product. Be safe- read this product safety information and pass it on to all persons who may be exposed to this product. Federal law requires it. This product and/or all of its components are either included on or exempt from the TSCA Inventory of Chemical Substances.

REVISION DATE: .................. 6/10/16
Section 2. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS Number</th>
<th>% by weight</th>
<th>ppm</th>
</tr>
</thead>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence do not require reporting in this section.

Section 3. Hazardous Identification

Emergency Overview: Prolonged and or repeated contact may cause mild irritation or redness to eyes and skin.
Physical state: Liquid
Color: Transparent

Precautionary measures: Use personal protective gear and appropriate handling measures to control/reduce hazards associated with contact with eyes, skin, ingestion, inhalation and environmental release.

Routes of entry: Eyes, skin, inhalation, ingestion

Potential acute health effects:

- **Inhalation**: May be irritating to the mucous membranes to the nose, throat or lungs. Choking, coughing or headache may occur.
- **Ingestion**: May cause irritation to the mouth, throat and gastrointestinal system. Large amounts may cause vomiting and diarrhea.
- **Skin**: May cause redness or swelling. Prolonged or repeated contact may cause dermatitis.
- **Eyes**: Severe eye irritant. Liquid and mists may damage the eyes causing corneal injury.

See toxicological information sect 11

Section 4. First Aid Measures

**First Aid for Eye:** Check for and remove any contact lens. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

**First Aid for Skin:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**First Aid for Inhalation:** Move exposed person to fresh air. If not breathing, is irregular or if respiratory arrests occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as collar, tie, belt or waistband. Get medical attention immediately.

**First Aid for Ingestion:** Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**Protection of first aiders:** No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
Section 5. Fire Fighting Measures

<table>
<thead>
<tr>
<th>Property</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point (°F)</td>
<td>N/A</td>
</tr>
<tr>
<td>Extinguishing media</td>
<td>Nonflammable</td>
</tr>
<tr>
<td>Special exposure hazards</td>
<td>None Known</td>
</tr>
<tr>
<td>Decomposition products</td>
<td>Alkaline vapors in a fire</td>
</tr>
<tr>
<td>Special Protective equipment</td>
<td>None Known</td>
</tr>
<tr>
<td>for fire fighters</td>
<td></td>
</tr>
</tbody>
</table>

Section 6. Accidental Release Measures

<table>
<thead>
<tr>
<th>Property</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal precautions</td>
<td>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal equipment (see section 8).</td>
</tr>
<tr>
<td>Environmental precautions</td>
<td>Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities of the product has caused environmental pollution (sewer, waterways, soil, or air).</td>
</tr>
<tr>
<td>Methods for cleaning up</td>
<td>Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.</td>
</tr>
<tr>
<td>Small Spill</td>
<td>Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage into an effluent treatment plant or proceed as follows. Contain a collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or idiomaceous earth and place in container for disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note see Section 1 for emergency contact information and section 13 for waste disposal.</td>
</tr>
<tr>
<td>Large Spill</td>
<td></td>
</tr>
</tbody>
</table>

Section 7. Handling and Storage

<table>
<thead>
<tr>
<th>Property</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling &amp; Storing:</td>
<td>Put appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not breathe vapor or mist. Do not swallow. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or approved alternative made from a compatible material, kept tightly closed when not in use. For industrial use only. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</td>
</tr>
<tr>
<td>Storage</td>
<td></td>
</tr>
</tbody>
</table>

Section 8. Exposure Controls / Personal Protective Equipment

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Exposure limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ACGIH TLV (United States)</td>
</tr>
<tr>
<td></td>
<td>TWA: hours</td>
</tr>
<tr>
<td>Recommended monitoring procedures</td>
<td>If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.</td>
</tr>
</tbody>
</table>
Section 8. Exposure Controls / Personal Protective Equipment (cont’d)

Engineering measures
Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothes before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Hygiene measures

Personal protection

Respiratory

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Chemical-resistant, imperious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Hands

Safety eyewear complying with an approved standard should be use when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible chemical splash goggles should be worn (unless the assessment indicates a higher degree of protection).

Eyes

Skin

Environmental exposure controls

Emissions form ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters, or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
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<tbody>
<tr>
<td>Physical state</td>
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<td>pH</td>
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<tr>
<td>Solubility in water</td>
<td>Soluable</td>
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</tbody>
</table>
Section 10. Stability and Reactivity

**Chemical Stability:** Stable

**Conditions to avoid**

None known

**Incompatible materials**

None known

**Hazardous decomposition products**

None known

**Hazardous Polymerization**

Under normal conditions of storage and use, hazardous reactions will not occur.

Section 11. Toxicological Information

### Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
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<tr>
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</tr>
</tbody>
</table>

### Chronic toxicity

Conclusion/Summary

No data available at this time

### Carcinogenicity

Conclusion/Summary

No data available at this time

### Mutagenicity

Conclusion/Summary

No data available at this time

### Teratogenicity

Conclusion/Summary

No data available at this time

### Reproductive toxicity

Conclusion/Summary

No data available at this time

Section 12. Ecological Information

### Ecotoxicity

No data available at this time

### Aquatic exotoxicity

#### Conclusion/Summary

No data available at this time

### Persistence/degradability

#### Conclusion/Summary

Inorganic. Soluble silicates, upon dilution, rapidly depolymerise into molecular species indistinguishable from natural dissolved silica. They combine with ions like Ca, Mg, Fe, Al and others to end up as insoluble compounds similar to constituents of natural soils.

Section 13. Disposable Considerations

**Water disposal**

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any-by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Disposal of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8 Exposure Control/Personal Protection for additional handling information and protection of employees.
Section 14. Transportation Information

<table>
<thead>
<tr>
<th>Regulatory Information</th>
<th>UN Number</th>
<th>Proper shipping name</th>
<th>Classes</th>
<th>PG*</th>
<th>Label</th>
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<tr>
<td>DOT Classification</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>IMDG Class</td>
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<tr>
<td>IATA-DGR Class</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

PG* Packing Group

Section 15. Regulatory Information

Not regulated

Section 16. Other Information

Neither this data sheet nor any statement contained herein grants or extends any licence, express or implied in connection with patents issued or pending which may be the property of the manufacturer or others.

Information in this Data Sheet has been assembled by the manufacturer based on its own study and on the work of others.

The manufacturer makes no warranties, express or implied as to the accuracy, completeness or adequacy of the information contained herein.

The manufacturer shall not be liable (regardless of fault) to the vendee, the vendee's employees or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing such information.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.
Section 1. Product and Company Identification

Product Name: Water Based Fragrance (Blue)  
Supplier: Kleen-Rite Corporation  
257 South 9th St.  
Columbia, PA 17512  
PHONE 800-233-3873  

In Case of emergency Chemtrec 800-424-9300  

Section 2. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS Number</th>
<th>% by weight</th>
<th>ppm</th>
</tr>
</thead>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence do not require reporting in this section.

Section 3. Hazardous Identification

Emergency Overview: Prolonged and or repeated contact may cause mild irritation or redness to eyes and skin.  
Physical state: Liquid  
Color: Transparent  

Precautionary measures: Use personal protective gear and appropriate handling measures to control/reduce hazards associated with contact with eyes, skin, ingestion, inhalation and environmental release.

Routes of entry: Eyes, skin, inhalation, ingestion  

Potential acute health effects:

- Inhalation: May be irritating to the mucous membranes to the nose, throat or lungs. Choking, coughing or headache may occur.  
- Ingestion: May cause irritation to the mouth, throat and gastrointestinal system. Large amounts may cause vomiting and diarrhea.  
- Skin: May cause redness or swelling. Prolonged or repeated contact may cause dermatitis.  
- Eyes: Severe eye irritant. Liquid and mists may damage the eyes causing corneal injury.  

See toxicological information sect 11

Section 4. First Aid Measures

First Aid for Eye: Check for and remove any contact lens. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.  
First Aid for Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse.  
First Aid for Inhalation: Move exposed person to fresh air. If not breathing, is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as collar, tie, belt or waistband. Get medical attention immediately.  
First Aid for Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.  
Protection of first aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
Section 5. Fire Fighting Measures

- Flash point (°F): N/A
- Extinguishing media: Nonflammable
- Special exposure hazards: None Known
- Decomposition products: Alkaline vapors in a fire
- Special Protective equipment for fire fighters: None Known

Section 6. Accidental Release Measures

- Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unproctected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal equipment (see section 8).

- Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevent authorities of the product has caused environmental pollution (sewer, waterways,soil, or air).

- Methods for cleaning up
  - Small Spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
  - Large Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spililage into an effluent treatment plant or proceed as follows. Contain a collect spililage with non-combustible, absorbent material e.g. sand, earth, vermiculite or idatomaceous earth and place in container for disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note see Section 1 for emergency contact information and section 13 for waste disposal.

Section 7. Handling and Storage

- Handling & Storing: Put appropriate personal protective equipment (see section 8). Eating, drinking and smoking shold be prohibited in areas where material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not breathe vapor or mist. Do not swallow. Avoid contact with eyes, skin, and cothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or approved alternative made from a compatible material, kept tightly closed when not in use. For Industrial use only. Store in accordance with local regulations. Store in orginial container protected from direct sunlight in a dry, cool and well ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

- Storage:

Section 8. Exposure Controls / Personal Protective Equipment

- Ingredient: Exposure limits
- ACGIH TLV (United States)
  - TWA: hours
- Recommended monitoring procedures

  If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference shoud be made to appropiate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Page 2 of 5
Section 8. Exposure Controls / Personal Protective Equipment (cont'd)

Engineering measures
Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothes before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Hygiene measures
Chemical-resistant, imperivous gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Personal protection
Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Respiratory
Chemical-resistant, imperivous gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Hands
Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible chemical splash goggles should be worn (unless the assessment indicates a higher degree of protection).

Eyes
Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Skin
Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters, or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Environmental exposure controls

Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>liquid (mobile, liquid)</th>
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<tbody>
<tr>
<td>Flash point (°F)</td>
<td>N/A</td>
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<tr>
<td>Appearance @ 70°F</td>
<td>liquid (mobile, liquid)</td>
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<td>Boiling point (°F)</td>
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<td>Specific Gravity</td>
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<td>Vapor density</td>
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<td>Evaporation rate</td>
<td>(water = 1) &lt;1</td>
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<td>pH</td>
<td>7 to 8</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Soluable</td>
</tr>
</tbody>
</table>
Section 10. Stability and Reactivity

Chemical Stability: Stable

Conditions to avoid: None known

Incompatible materials: None known

Hazardous decomposition products: None known

Hazardous Polymerization: Under normal conditions of storage and use, hazardous reactions will not occur.

Section 11. Toxicological Information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
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<tr>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

Acute toxicity

Chronic toxicity
Conclusion/Summary: No data available at this time

Carcinogenicity
Conclusion/Summary: No data available at this time

Mutagenicity
Conclusion/Summary: No data available at this time

Teratogenicity
Conclusion/Summary: No data available at this time

Reproductive toxicity
Conclusion/Summary: No data available at this time

Section 12. Ecological Information

Ecotoxicity
Conclusion/Summary: No data available at this time

Aquatic exotoxicity
Conclusion/Summary: No data available at this time

Persistence/degradability
Conclusion/Summary: Inorganic. Soluble silicates, upon dilution, rapidly depolymerise into molecular species indistinguishable from natural dissolved silica. They combine with ions like Ca, Mg, Fe, Al and others to end up as insoluble compounds similar to constituents of natural soils.

Section 13. Disposable Considerations

Water disposal
The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any-by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Disposal of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.
SAFETY DATA SHEET

Section 14. Transportation Information

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PG* Packing Group

Section 15. Regulatory Information

Not regulated

Section 16. Other Information

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.
Section 1. Product and Company Identification

Product Name: Oil Based Fragrance (Green)  
Supplier: Kleen-Rite Corporation  
257 South 9th St. Columbia, PA 17512

DATE: 4/2/2015  
REV. 01

In Case of emergency Chemtrec 800-424-9300

Section 2. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS Number</th>
<th>% by weight</th>
<th>ppm</th>
</tr>
</thead>
</table>

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence do not require reporting in this section.

Section 3. Hazardous Identification

Emergency Overview: Prolonged and or repeated contact may cause mild irritation or redness to eyes and skin.

Physical state: Liquid

Color: Transparent

Precautionary measures: Use personal protective gear and appropriate handling measures to control/reduce hazards associated with contact with eyes, skin, ingestion, inhalation and environmental release.

Routes of entry: Eyes, skin, inhalation, ingestion

Potential acute health effects:

Inhalation: May be irritating to the mucous membranes to the nose, throat or lungs. Choking, coughing or headache may occur.

Ingestion: May cause irritation to the mouth, throat and gastrointestinal system. Large amounts may cause vomiting and diarrhea.

Skin: May cause redness or swelling. Prolonged or repeated contact may cause dermatitis.

Eyes: Severe eye irritant. Liquid and mists may damage the eyes causing corneal injury.

See toxicological information sect 11

Section 4. First Aid Measures

First Aid for Eye: Check for and remove any contact lens. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

First Aid for Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse.

First Aid for Inhalation: Move exposed person to fresh air. If not breathing, is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as collar, tie, belt or waistband. Get medical attention immediately.

First Aid for Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Protection of first aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
Section 5. Fire Fighting Measures

<table>
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<tr>
<th>Property</th>
<th>Description</th>
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<tr>
<td>Flash point (°F)</td>
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<td>Extinguishing media</td>
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<td>Special exposure hazards</td>
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<td>Decomposition products</td>
<td>Alkaline vapors in a fire</td>
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<tr>
<td>Special Protective equipment for</td>
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<tr>
<td>fire fighters</td>
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</table>

Section 6. Accidental Release Measures

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal precautions</td>
<td>No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal equipment (see section 8).</td>
</tr>
<tr>
<td>Environmental precautions</td>
<td>Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities of the product has caused environmental pollution (sewer, waterways, soil, or air).</td>
</tr>
<tr>
<td>Methods for cleaning up</td>
<td>Small Spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. Large Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillage into an effluent treatment plant or proceed as follows. Contain an collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or idatomaceous earth and place in container for disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note see Section 1 for emergency contact information and section 13 for waste disposal.</td>
</tr>
</tbody>
</table>

Section 7. Handling and Storage

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling &amp; Storing</td>
<td>Put appropriate personal protective equipment (see section 8). Eating, drinking and smoking shall be prohibited in areas where material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not breathe vapor or mist. Do not swallow. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or approved alternative made from a compatible material, kept tightly closed when not in use. For Industrial use only. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</td>
</tr>
</tbody>
</table>

Section 8. Exposure Controls / Personal Protective Equipment

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Exposure limits</th>
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<tbody>
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<td>ACGIH TLV (United States)</td>
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<td></td>
<td>TWA:</td>
</tr>
</tbody>
</table>

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
Section 8. Exposure Controls / Personal Protective Equipment (cont’d)

Engineering measures

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other
engineering controls to keep worker exposure to airborne contaminants below any recommended or
statutory limits.

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking
and using the lavatory and at the end of the working period. Appropriate techniques should be used to
remove potentially contaminated clothing. Wash contaminated clothes before reusing. Ensure that
eyewash stations and safety showers are close to the workstation location.

Hygiene measures

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk
assessment indicates this is necessary. Respirator selection must be based on known or anticipated
exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Chemical-resistant, imperious gloves complying with an approved standard should be worn at all
times when handling chemical products if a risk assessment indicates this is necessary. Considering the
parameters specified by the glove manufacturer, check during use that the gloves are still retaining
their protective properties. It should be noted that the time to breakthrough for any glove material may
be different for different glove manufacturers. In the case of mixtures, consisting of several substances,
the protection time of the gloves cannot be accurately estimated.

Personal protection

Respiratory

Safety eyewear complying with an approved standard should be use when a risk assessment indicates
this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible chemical
splash goggles should be worn (unless the assessment indicates a higher degreee of protection).

Hands

Personal protective equipment for the body should be selected based on the task being performed and
the risks invovled and should be approved by a specialist before handling this product.

Eyes

Skin

Environmental exposure controls

Emissions form ventilation or work process equipment should be checked to ensure they comply with
the requirements of environmental protection legislation. In some cases, fume scrubbers, filters, or
engineering modifications to the process equipment will be necessary to reduce emissions to
acceptable levels.

Section 9. Physical and Chemical Properties

<table>
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<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>liquid (mobile, liquid)</td>
</tr>
<tr>
<td>Flash point (°F)</td>
<td>N/A</td>
</tr>
<tr>
<td>Appearance @ 70°F</td>
<td>liquid (mobile, liquid)</td>
</tr>
<tr>
<td>Boiling point (°F)</td>
<td>212</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.04</td>
</tr>
<tr>
<td>Vapor density</td>
<td>(air = 1) &gt;1</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>(water = 1) &lt;1</td>
</tr>
<tr>
<td>pH</td>
<td>7 to 8</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Soluble</td>
</tr>
</tbody>
</table>
Section 10. Stability and Reactivity

Chemical Stability: Stable

Conditions to avoid None known

Incompatible materials None known

Hazardous decomposition products None known

Hazardous Polymerization Under normal conditions of storage and use, hazardous reactions will not occur.

Section 11. Toxicological Information

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data provided at this time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chronic toxicity

Conclusion/Summary No data available at this time

Carcinogenicity

Conclusion/Summary No data available at this time

Mutagenicity

Conclusion/Summary No data available at this time

Teratogenicity

Conclusion/Summary No data available at this time

Reproductive toxicity

Conclusion/Summary No data available at this time

Section 12. Ecological Information

Ecotoxicity No data available at this time

Aquatic exotoxicity

Conclusion/Summary No data available at this time

Persistence/degradability

Conclusion/Summary Inorganic. Soluble silicates, upon dilution, rapidly depolymerise into molecular species indistinguishable from natural dissolved silica. They combine with ions like Ca, Mg, Fe, Al and others to end up as insoluble compounds similar to constituents of natural soils.

Section 13. Disposable Considerations

Water disposal

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any-by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Disposal of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and it container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8 Exposure Control/Personal Protection for additional handling information and protection of employees.
Regulatory Information | UN Number | Proper shipping name | Classes | PG* | Label | Additional Information
--- | --- | --- | --- | --- | --- | ---
DOT Classification | Not regulated | | | | | |
IMDG Class | Not regulated | | | | | |
IATA-DGR Class | Not regulated | | | | | |

**Section 15. Regulatory Information**

Not regulated

**Section 16. Other Information**

Neither this data sheet nor any statement contained herein grants or extends any licence, express or implied in connection with patents issued or pending which may be the property of the manufacturer or others.

Information in this Data Sheet has been assembled by the manufacturer based on its own study and on the work of others.

The manufacturer makes no warranties, express or implied as to the accuracy, completeness or adequacy of the information contained herein.

The manufacturer shall not be liable (regardless of fault) to the vendee, the vendee's employees or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing such information.

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.
Section 1. Identification

Product Identifier: ALL PAWS TEARLESS SHAMPOO (AP-101)
Synonyms: LIQUID FOAMING DETERGENT
Manufacturer Stock Numbers: N/A

Recommended use: CONCENTRATED DOG WASH SHAMPOO
Uses advised against: N/A

Manufacturer Contact Address:
JBS IND.
2550 HENKLE DRIVE
LEBANON, OHIO, 45036
USA

Phone: (513) 228-2800
Emergency Phone: (800) 424-9300
Fax: (513) 228-2810
CHEMTREC

Section 2. Hazards Identification

Classification: N/A
Signal Word: N/A
Pictogram: N/A
Hazard Statements: N/A
Precautionary Statements:
Response: N/A
Prevention: N/A
Storage: N/A
Disposal: N/A
General: FOR CONCENTRATE: Irritating to eyes. Inhalation of mists may be irritating to throat and respiratory tract. Repeated contact with skin can remove natural oils and cause dryness and irritation.

Ingredients of unknown toxicity: 0%
Hazards not Otherwise: N/A


Section 3. Ingredients

<table>
<thead>
<tr>
<th>CAS</th>
<th>Ingredient Name</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PROPRIETARY SURFACTANT BLEND</td>
<td>15% - 20%</td>
</tr>
</tbody>
</table>

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-Aid Measures

- **EYE**
  Concentrate: Flush eyes with clear water for at least 15 minutes. Seek medical assistance if irritation persists.

- **SKIN**
  Concentrate: Rinse well with water and remove contaminated clothing and wash separate before reuse.

- **Ingestion**
  Give water if conscious. Do not induce vomiting although vomiting may occur naturally. Get immediate medical attention.

- **INHALATION**
  Concentrate: Move to fresh air. If irritation persists get medical attention.

Section 5. Fire Fighting Measures

- **Suitable Extinguishing Media**
  Material will not burn.

- **Unsuitable Extinguishing Media**
  N/A

Section 6. Accidental Release Measures

- **Clean-up**
  Concentrate: Small spills may be diluted and rinsed to sanitary sewer. Large spills should be contained and offered for disposal per state and/or local laws.

Section 7. Handling and Storage

- **Storage**
  Store in original container at temperatures below 120 degrees F. Product is best if used within 6mths of purchase.

- **Handling**
  Spills may cause floor to become slippery

Section 8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>Occupational Exposure Limits</th>
<th>Ingredient Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PROPRIETARY SURFACTANT BLEND</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal Protective Equipment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye/Face Protection</td>
<td>Concentrate: Wear safety glasses</td>
</tr>
<tr>
<td>Skin Protection</td>
<td>Concentrate: Neoprene gloves</td>
</tr>
<tr>
<td>Respiratory Protection</td>
<td>Good general ventilation</td>
</tr>
</tbody>
</table>
### Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>LIQUID</td>
</tr>
<tr>
<td>Color</td>
<td>ORANGE</td>
</tr>
<tr>
<td>Odor</td>
<td>FRESH SCENT</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility</td>
<td>COMPLETE</td>
</tr>
<tr>
<td>Partition coefficient Water/n-octanol</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC%</td>
<td>N/A</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.02</td>
</tr>
<tr>
<td>Density lbs/Gal</td>
<td>N/A</td>
</tr>
<tr>
<td>Pounds per Cubic Foot</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash Point</td>
<td>N/A</td>
</tr>
<tr>
<td>FP Method</td>
<td>N/A</td>
</tr>
<tr>
<td>pH</td>
<td>7</td>
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<tr>
<td>Melting Point</td>
<td>N/A</td>
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<tr>
<td>Boiling Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Range</td>
<td>N/A</td>
</tr>
<tr>
<td>LEL</td>
<td>N/A</td>
</tr>
<tr>
<td>UEL</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### Section 10. Stability and Reactivity

**STABILITY:** STABLE  
**HAZARDOUS** WILL NOT OCCUR  
**POLYMERIZATION:** WILL NOT OCCUR

### Section 11. Toxicological Information

No Data Available

### Section 12. Ecological Information

No Data Available
Section 13. Disposal

WASTE DISPOSAL
METHOD: For proper disposal of waste, refer to federal and state regulations.

Section 14. Transport Information

UN Number N/A
UN Proper Shipping Name NOT a DOT regulated product
DOT Classification N/A
Packing Group N/A
FREIGHT CLASS 55

Section 15. Regulatory Information

No Data Available

Section 16. Other Information

Revision Date 1/7/2016
NFPA Rating Health: 1 Fire: 0 Reactivity: 0
HMIS Health: 1 Fire: 0 Reactivity: 0 Personal Protection: B
DISCLAIMER: The information contained herein is believed to be accurate and is offered in good faith. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Mixing this product with any other materials may change the characteristics such as flash point, flammability or health effects. Because product use is beyond our control, no warranty is given, expressed or implied.
ALL PAWS TUB DISINFECTANT (AP-102)

Section 1. Identification

<table>
<thead>
<tr>
<th>Product Identifier</th>
<th>ALL PAWS TUB DISINFECTANT (AP-102)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms</td>
<td>FOAMING TUB DETERGENT</td>
</tr>
<tr>
<td>Manufacturer Stock Numbers</td>
<td>N/A</td>
</tr>
<tr>
<td>Recommended use</td>
<td>CONCENTRATED TUB WASH</td>
</tr>
<tr>
<td>Uses advised against</td>
<td>DO NOT USE ON PETS</td>
</tr>
<tr>
<td>Manufacturer Contact Address</td>
<td>JBS IND. 2550 HENKLE DRIVE LEBANON, OHIO, 45036 USA</td>
</tr>
<tr>
<td>Phone</td>
<td>(513) 228-2800</td>
</tr>
<tr>
<td>Emergency Phone</td>
<td>(800) 424-9300</td>
</tr>
<tr>
<td>Fax</td>
<td>(513) 228-2810</td>
</tr>
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</table>

Section 2. Hazards Identification

<table>
<thead>
<tr>
<th>Classification</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Signal Word</td>
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</tr>
<tr>
<td>Pictogram</td>
<td>N/A</td>
</tr>
<tr>
<td>Hazard Statements</td>
<td>N/A</td>
</tr>
<tr>
<td>Precautionary Statements</td>
<td>N/A</td>
</tr>
<tr>
<td>Response</td>
<td>N/A</td>
</tr>
<tr>
<td>Prevention</td>
<td>N/A</td>
</tr>
<tr>
<td>Storage</td>
<td>N/A</td>
</tr>
<tr>
<td>Disposal</td>
<td>N/A</td>
</tr>
<tr>
<td>General</td>
<td>FOR CONCENTRATE: Irritating to eyes. Inhalation of mists may be irritating to throat and respiratory tract. Repeated contact with skin can remove natural oils and cause dryness and irritation.</td>
</tr>
<tr>
<td>Ingredients of unknown toxicity</td>
<td>0%</td>
</tr>
<tr>
<td>Hazards not Otherwise</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Section 3. Ingredients

<table>
<thead>
<tr>
<th>CAS</th>
<th>Ingredient Name</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PROPRIETARY SURFACTANT BLEND</td>
<td>15% - 20%</td>
</tr>
</tbody>
</table>

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-Aid Measures

- **EYE**: Concentrate: Flush eyes with clear water for at least 15 minutes. Seek medical assistance if irritation persists.
- **SKIN**: Concentrate: Rinse well with water and remove contaminated clothing and wash separate before reuse.
- **Ingestion**: Give water if conscious. Do not induce vomiting although vomiting may occur naturally. Get immediate medical attention.
- **INHALATION**: Concentrate: Move to fresh air. If irritation persists get medical attention.

Section 5. Fire Fighting Measures

- **Suitable Extinguishing Media**: Material will not burn.
- **Unsuitable Extinguishing Media**: N/A

Section 6. Accidental Release Measures

- **Clean-up**: Concentrate: Small spills may be diluted and rinsed to sanitary sewer. Large spills should be contained and offered for disposal per state and/or local laws.

Section 7. Handling and Storage

- **Storage**: Store in original container at temperatures below 120 degrees F. Product is best if used within 6mths of purchase.
- **Handling**: Spills may cause floor to become slippery

Section 8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>Occupational Exposure Limits</th>
<th>Ingredient Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PROPRIETARY SURFACTANT BLEND</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Personal Protective Equipment</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eye/Face Protection</td>
<td>Concentrate: Wear safety glasses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin Protection</td>
<td>Concentrate: Neoprene gloves</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory Protection</td>
<td>Good general ventilation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>LIQUID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>CLEAR</td>
</tr>
<tr>
<td>Odor</td>
<td>SLIGHT CHARACTERISTIC</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility</td>
<td>COMPLETE</td>
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<tr>
<td>Partition coefficient Water/n-octanol</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC%</td>
<td>N/A</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.02</td>
</tr>
<tr>
<td>Density lbs/Gal</td>
<td>N/A</td>
</tr>
<tr>
<td>Pounds per Cubic Foot</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash Point</td>
<td>N/A</td>
</tr>
<tr>
<td>FP Method</td>
<td>N/A</td>
</tr>
<tr>
<td>Ph</td>
<td>7</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Range</td>
<td>N/A</td>
</tr>
<tr>
<td>LEL</td>
<td>N/A</td>
</tr>
<tr>
<td>UEL</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

STABILITY: STABLE
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

Section 11. Toxicological Information

No Data Available

Section 12. Ecological Information

No Data Available
Section 13. Disposal

WASTE DISPOSAL  For proper disposal of waste, refer to federal and state regulations.
METHOD:

Section 14. Transport Information

<table>
<thead>
<tr>
<th>UN Number</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN Proper Shipping Name</td>
<td>NOT a DOT regulated product</td>
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<tr>
<td>DOT Classification</td>
<td>N/A</td>
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<td>Packing Group</td>
<td>N/A</td>
</tr>
<tr>
<td>FREIGHT CLASS</td>
<td>55</td>
</tr>
</tbody>
</table>

Section 15. Regulatory Information

No Data Available

Section 16. Other Information

Revision Date  1/7/2016
NFPA Rating Health: 1 Fire: 0 Reactivity: 0
HMIS Health: 1 Fire: 0 Reactivity: 0 Personal Protection: B
DISCLAIMER: The information contained herein is believed to be accurate and is offered in good faith. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Mixing this product with any other materials may change the characteristics such as flash point, flammability or health effects. Because product use is beyond our control, no warranty is given, expressed or implied.
Section 1. Identification

Product Identifier: ALL PAWS PET DEODERIZER SHAMPOO (AP-103)
Synonyms: LIQUID FOAMING DETERGENT
Manufacturer Stock Numbers: N/A
Recommended use: CONCENTRATED DOG WASH SHAMPOO
Uses advised against: N/A
Manufacturer Contact Address: JBS IND.
2550 HENKLE DRIVE
LEBANON, OHIO, 45036
USA
Phone: (513) 228-2800
Emergency Phone: (800) 424-9300
CHEMTREC
Fax: (513) 228-2810

Section 2. Hazards Identification

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Signal Word: N/A
Pictogram: N/A
Hazard Statements: N/A
Precautionary Statements Response: N/A
Prevention: N/A
Storage: N/A
Disposal: N/A
General: FOR CONCENTRATE: Irritating to eyes. Inhalation of mists may be irritating to throat and respiratory tract. Repeated contact with skin can remove natural oils and cause dryness and irritation.
Ingredients of unknown toxicity: 0%
Hazards not Otherwise N/A
Section 3. Ingredients

<table>
<thead>
<tr>
<th>CAS</th>
<th>Ingredient Name</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PROPRIETARY SURFACTANT BLEND</td>
<td>15% - 20%</td>
</tr>
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Section 4. First-Aid Measures

- **EYE**: Concentrate: Flush eyes with clear water for at least 15 minutes. Seek medical assistance if irritation persists.
- **SKIN**: Concentrate: Rinse well with water and remove contaminated clothing and wash separate before reuse.
- **Ingestion**: Give water if conscious. Do not induce vomiting although vomiting may occur naturally. Get immediate medical attention.
- **INHALATION**: Concentrate: Move to fresh air. If irritation persists get medical attention.

Section 5. Fire Fighting Measures

- **Suitable Extinguishing Media**: Material will not burn.
- **Unsuitable Extinguishing Media**: N/A

Section 6. Accidental Release Measures

- **Clean-up**: Concentrate: Small spills may be diluted and rinsed to sanitary sewer. Large spills should be contained and offered for disposal per state and/or local laws.

Section 7. Handling and Storage

- **Storage**: Store in original container at temperatures below 120 degrees F. Product is best if used within 6mths of purchase.
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<tr>
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<td>N/A</td>
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</tr>
</tbody>
</table>

- **Personal Protective Equipment**: N/A
- **Eye/Face Protection**: Concentrate: Wear safety glasses
- **Skin Protection**: Concentrate: Neoprene gloves
- **Respiratory Protection**: Good general ventilation
Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>LIQUID</td>
</tr>
<tr>
<td>Color</td>
<td>BLUE</td>
</tr>
<tr>
<td>Odor</td>
<td>CEDAR SCENT</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility</td>
<td>COMPLETE</td>
</tr>
<tr>
<td>Partition coefficient Water/n-octanol</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC%</td>
<td>N/A</td>
</tr>
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<td>Specific Gravity</td>
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<td>Pounds per Cubic Foot</td>
<td>N/A</td>
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<tr>
<td>Flash Point</td>
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<td>FP Method</td>
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<tr>
<td>pH</td>
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<td>Melting Point</td>
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<tr>
<td>UEL</td>
<td>N/A</td>
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<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

STABILITY: STABLE
HAZARDOUS: WILL NOT OCCUR
POLYMERIZATION: WILL NOT OCCUR

Section 11. Toxicological Information

No Data Available

Section 12. Ecological Information

No Data Available
Section 13. Disposal

WASTE DISPOSAL
METHOD:
For proper disposal of waste, refer to federal and state regulations.

Section 14. Transport Information

UN Number
N/A
UN Proper Shipping Name
NOT a DOT regulated product
DOT Classification
N/A
Packing Group
N/A
FREIGHT CLASS
55

Section 15. Regulatory Information

No Data Available

Section 16. Other Information

Revision Date
1/7/2016
NFPA Rating
Health: 1 Fire: 0 Reactivity: 0
HMIS
Health: 1 Fire: 0 Reactivity: 0 Personal Protection: B
DISCLAIMER:
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Safety Data Sheet
ALL PAWS OATMEAL SHAMPOO (AP-104)

Section 1. Identification

Product Identifier: ALL PAWS OATMEAL SHAMPOO (AP-104)
Synonyms: LIQUID FOAMING DETERGENT
Manufacturer Stock Numbers: N/A

Recommended use: CONCENTRATED DOG WASH SHAMPOO
Uses advised against: N/A

Manufacturer Contact
Address: JBS IND.
2550 HENKLE DRIVE
LEBANON, OHIO, 45036
USA

Phone: (513) 228-2800
Emergency Phone: (800) 424-9300
CHEMTREC
Fax: (513) 228-2810

Section 2. Hazards Identification

Classification: N/A
Signal Word: N/A
Pictogram: N/A
Hazard Statements: N/A
Precautionary Statements
Response: N/A
Prevention: N/A
Storage: N/A
Disposal: N/A
General: FOR CONCENTRATE: Irritating to eyes. Inhalation of mists may be irritating to throat and respiratory tract. Repeated contact with skin can remove natural oils and cause dryness and irritation.

Ingredients of unknown toxicity: 0%

 Hazards not Otherwise: N/A
Section 3. Ingredients

<table>
<thead>
<tr>
<th>CAS</th>
<th>Ingredient Name</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PROPRIETARY SURFACTANT BLEND</td>
<td>15% - 20%</td>
</tr>
</tbody>
</table>

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-Aid Measures

**EYE**
Concentrate: Flush eyes with clear water for at least 15 minutes. Seek medical assistance if irritation persists.

**SKIN**
Concentrate: Rinse well with water and remove contaminated clothing and wash separate before reuse.

**Ingestion**
Give water if conscious. Do not induce vomiting although vomiting may occur naturally. Get immediate medical attention.

**INHALATION**
Concentrate: Move to fresh air. If irritation persists get medical attention.

Section 5. Fire Fighting Measures

**Suitable Extinguishing Media**
Material will not burn.

**Unsuitable Extinguishing Media**
N/A

Section 6. Accidental Release Measures

**Clean-up**
Concentrate: Small spills may be diluted and rinsed to sanitary sewer. Large spills should be contained and offered for disposal per state and/or local laws.

Section 7. Handling and Storage

**Storage**
Store in original container at temperatures below 120 degrees F. Product is best if used within 6mths of purchase.

**Handling**
Spills may cause floor to become slippery

Section 8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>Occupational Exposure Limits</th>
<th>Ingredient Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROPRIETARY SURFACTANT BLEND</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Personal Protective Equipment**
N/A

**Eye/Face Protection**
Concentrate: Wear safety glasses

**Skin Protection**
Concentrate: Neoprene gloves

**Respiratory Protection**
Good general ventilation
Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>LIQUID</td>
</tr>
<tr>
<td>Color</td>
<td>CLEAR</td>
</tr>
<tr>
<td>Odor</td>
<td>FRESH SCENT</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility</td>
<td>COMPLETE</td>
</tr>
<tr>
<td>Partition coefficient Water/n-octanol</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC%</td>
<td>N/A</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.02</td>
</tr>
<tr>
<td>Density lbs/Gal</td>
<td>N/A</td>
</tr>
<tr>
<td>Pounds per Cubic Foot</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash Point</td>
<td>N/A</td>
</tr>
<tr>
<td>FP Method</td>
<td>N/A</td>
</tr>
<tr>
<td>pH</td>
<td>7</td>
</tr>
<tr>
<td>Melting Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Range</td>
<td>N/A</td>
</tr>
<tr>
<td>LEL</td>
<td>N/A</td>
</tr>
<tr>
<td>UEL</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

STABILITY: STABLE
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

Section 11. Toxicological Information

No Data Available

Section 12. Ecological Information

No Data Available
Section 13. Disposal

WASTE DISPOSAL
METHOD: For proper disposal of waste, refer to federal and state regulations.

Section 14. Transport Information

UN Number N/A
UN Proper Shipping Name NOT a DOT regulated product
DOT Classification N/A
Packing Group N/A
FREIGHT CLASS 55

Section 15. Regulatory Information

No Data Available

Section 16. Other Information

Revision Date 1/7/2016
NFPA Rating Health: 1 Fire: 0 Reactivity: 0
HMIS Health: 1 Fire: 0 Reactivity: 0 Personal Protection: B
DISCLAIMER: The information contained herein is believed to be accurate and is offered in good faith. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Mixing this product with any other materials may change the characteristics such as flash point, flammability or health effects. Because product use is beyond our control, no warranty is given, expressed or implied.
Safety Data Sheet

ALL PAWS FLEA AND TICK SHAMPOO (AP-105)

Section 1. Identification

<table>
<thead>
<tr>
<th>Product Identifier</th>
<th>ALL PAWS FLEA AND TICK SHAMPOO (AP-105)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms</td>
<td>LIQUID FOAMING DETERGENT</td>
</tr>
<tr>
<td>Manufacturer Stock Numbers</td>
<td>N/A</td>
</tr>
</tbody>
</table>

| Recommended use          | CONCENTRATED DOG WASH SHAMPOO          |
| Uses advised against     | N/A                                    |

| Manufacturer Contact Address | JBS IND.  
|                             | 2550 HENKLE DRIVE  
|                             | LEBANON, OHIO, 45036  
|                             | USA                      |

| Phone                     | (513) 228-2800              |
| Emergency Phone           | (800) 424-9300              |
| Fax                       | (513) 228-2810              |

Section 2. Hazards Identification

| Classification | N/A          |
| Signal Word    | N/A          |
| Pictogram      | N/A          |
| Hazard Statements | N/A         |
| Precautionary Statements | N/A          |
| Response       | N/A          |
| Prevention     | N/A          |
| Storage        | N/A          |
| Disposal       | N/A          |
| General        | FOR CONCENTRATE: Irritating to eyes. Inhalation of mists may be irritating to throat and respiratory tract. Repeated contact with skin can remove natural oils and cause dryness and irritation. |

| Ingredients of unknown toxicity | 0% |
| Hazards not Otherwise | N/A |
Section 3. Ingredients

<table>
<thead>
<tr>
<th>CAS</th>
<th>Ingredient Name</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PROPRIETARY SURFACTANTBLEND</td>
<td>15% - 20%</td>
</tr>
</tbody>
</table>

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-Aid Measures

EYE
Concentrate: Flush eyes with clear water for at least 15 minutes. Seek medical assistance if irritation persists.

SKIN
Concentrate: Rinse well with water and remove contaminated clothing and wash separate before reuse.

Ingestion
Give water if conscious. Do not induce vomiting although vomiting may occur naturally. Get immediate medical attention.

INHALATION
Concentrate: Move to fresh air. If irritation persists get medical attention.

Section 5. Fire Fighting Measures

Suitable Extinguishing Media
Material will not burn.

Fire fighting procedures to surrounding materials

Unsuitable Extinguishing Media
N/A

Section 6. Accidental Release Measures

Clean-up
Concentrate: Small spills may be diluted and rinsed to sanitary sewer. Large spills should be contained and offered for disposal per state and/or local laws.

Section 7. Handling and Storage

Storage
Store in original container at temperatures below 120 degrees F. Product is best if used within 6mths of purchase.

Handling
Spills may cause floor to become slippery

Section 8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>Occupational Exposure Limits</th>
<th>Ingredient Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PROPRIETARY SURFACTANT BLEND</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Personal Protective Equipment</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eye/Face Protection</td>
<td>Concentrate: Wear safety glasses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin Protection</td>
<td>Concentrate: Neoprene gloves</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory Protection</td>
<td>Good general ventilation</td>
<td></td>
<td></td>
<td></td>
</tr>
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</table>
Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>LIQUID</th>
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<tbody>
<tr>
<td>Color</td>
<td>RED</td>
</tr>
<tr>
<td>Odor</td>
<td>CITRONELLA SCENT</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility</td>
<td>COMPLETE</td>
</tr>
<tr>
<td>Partition coefficient Water/n-octanol</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC%</td>
<td>N/A</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
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<td>Specific Gravity</td>
<td>1.02</td>
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<tr>
<td>Density lbs/Gal</td>
<td>N/A</td>
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<td>Pounds per Cubic Foot</td>
<td>N/A</td>
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<td>Flash Point</td>
<td>N/A</td>
</tr>
<tr>
<td>FP Method</td>
<td>N/A</td>
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<tr>
<td>Ph</td>
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<tr>
<td>Melting Point</td>
<td>N/A</td>
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<tr>
<td>Boiling Point</td>
<td>N/A</td>
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<tr>
<td>Boiling Range</td>
<td>N/A</td>
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<tr>
<td>LEL</td>
<td>N/A</td>
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<tr>
<td>UEL</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

STABILITY: STABLE
HAZARDOUS: WILL NOT OCCUR
POLYMERIZATION: WILL NOT OCCUR

Section 11. Toxicological Information

No Data Available

Section 12. Ecological Information

No Data Available
Section 13. Disposal

WASTE DISPOSAL

METHOD: For proper disposal of waste, refer to federal and state regulations.

Section 14. Transport Information

<table>
<thead>
<tr>
<th>UN Number</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN Proper Shipping Name</td>
<td>NOT a DOT regulated product</td>
</tr>
<tr>
<td>DOT Classification</td>
<td>N/A</td>
</tr>
<tr>
<td>Packing Group</td>
<td>N/A</td>
</tr>
<tr>
<td>FREIGHT CLASS</td>
<td>55</td>
</tr>
</tbody>
</table>

Section 15. Regulatory Information

No Data Available

Section 16. Other Information

<table>
<thead>
<tr>
<th>Revision Date</th>
<th>1/7/2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFPA Rating</td>
<td>Health: 1 Fire: 0 Reactivity: 0</td>
</tr>
<tr>
<td>HMIS</td>
<td>Health: 1 Fire: 0 Reactivity: 0 Personal Protection: B</td>
</tr>
</tbody>
</table>

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# Safety Data Sheet

## ALL PAWS ULTRA SHINE CONDITIONER (AP-106)

### Section 1. Identification

<table>
<thead>
<tr>
<th>Product Identifier</th>
<th>ALL PAWS ULTRA SHINE CONDITIONER (AP-106)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms</td>
<td>LIQUID FOAMING DETERGENT</td>
</tr>
<tr>
<td>Manufacturer Stock Numbers</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Recommended use**: CONCENTRATED DOG WASH CONDITIONER SHAMPOO

**Uses advised against**: N/A

**Manufacturer Contact Address**: JBS IND.
2550 HENKLE DRIVE
LEBANON, OHIO, 45036
USA

**Phone**: (513) 228-2800

**Emergency Phone**: (800) 424-9300

**Fax**: (513) 228-2810

**CHEMTREC**

### Section 2. Hazards Identification

<table>
<thead>
<tr>
<th>Classification</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal Word</td>
<td>N/A</td>
</tr>
<tr>
<td>Pictogram</td>
<td>N/A</td>
</tr>
<tr>
<td>Hazard Statements</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Precautionary Statements**

- **Response**: N/A
- **Prevention**: N/A
- **Storage**: N/A
- **Disposal**: N/A
- **General**: FOR CONCENTRATE: Irritating to eyes. Inhalation of mists may be irritating to throat and respiratory tract. Repeated contact with skin can remove natural oils and cause dryness and irritation.

**Ingredients of unknown toxicity**: 0%

**Hazards not Otherwise**: N/A
Section 3. Ingredients

<table>
<thead>
<tr>
<th>CAS</th>
<th>Ingredient Name</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PROPRIETARY SURFACTANT BLEND</td>
<td>15% - 20%</td>
</tr>
</tbody>
</table>

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-Aid Measures

EYE
Concentrate: Flush eyes with clear water for at least 15 minutes. Seek medical assistance if irritation persists.

SKIN
Concentrate: Rinse well with water and remove contaminated clothing and wash separate before reuse.

Ingestion
Give water if conscious. Do not induce vomiting although vomiting may occur naturally. Get immediate medical attention.

INHALATION
Concentrate: Move to fresh air. If irritation persists get medical attention.

Section 5. Fire Fighting Measures

Suitable Extinguishing Media
Material will not burn.

Unsuitable Extinguishing Media
N/A

Section 6. Accidental Release Measures

Clean-up
Concentrate: Small spills may be diluted and rinsed to sanitary sewer. Large spills should be contained and offered for disposal per state and/or local laws.

Section 7. Handling and Storage

Storage
Store in original container at temperatures below 120 degrees F. Product is best if used within 6mths of purchase.

Handling
Spills may cause floor to become slippery

Section 8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>Occupational Exposure Limits</th>
<th>Ingredient Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PROPRIETARY SURFACTANT BLEND</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Personal Protective Equipment
N/A

Eye/Face Protection
Concentrate: Wear safety glasses

Skin Protection
Concentrate: Neoprene gloves

Respiratory Protection
Good general ventilation
Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>LIQUID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>YELLOW</td>
</tr>
<tr>
<td>Odor</td>
<td>FRESH SCENT</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility</td>
<td>COMPLETE</td>
</tr>
<tr>
<td>Partition coefficient Water/n-octanol</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC%</td>
<td>N/A</td>
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<tr>
<td>Specific Gravity</td>
<td>1.02</td>
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<tr>
<td>Density lbs/Gal</td>
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<td>Pounds per Cubic Foot</td>
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<td>Flash Point</td>
<td>N/A</td>
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<tr>
<td>FP Method</td>
<td>N/A</td>
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<td>Ph</td>
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<td>Melting Point</td>
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<td>Boiling Range</td>
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<tr>
<td>LEL</td>
<td>N/A</td>
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<tr>
<td>UEL</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
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<tr>
<td>Flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>N/A</td>
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<tr>
<td>Auto-ignition Temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

STABILITY: STABLE
HAZARDOUS: WILL NOT OCCUR

Section 11. Toxicological Information

No Data Available

Section 12. Ecological Information

No Data Available
Section 13. Disposal

WASTE DISPOSAL
METHOD:
For proper disposal of waste, refer to federal and state regulations.

Section 14. Transport Information

UN Number: N/A
UN Proper Shipping Name: NOT a DOT regulated product
DOT Classification: N/A
Packing Group: N/A
FREIGHT CLASS: 55

Section 15. Regulatory Information
No Data Available

Section 16. Other Information

Revision Date: 1/7/2016
NFPA Rating: Health: 1 Fire: 0 Reactivity: 0
HMIS: Health: 1 Fire: 0 Reactivity: 0 Personal Protection: B

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