SECTION 1. IDENTIFICATION

Product name : SIGNATRY® Antimicrobial Foam Cleanser

Product code : S5362

Manufacturer or supplier’s details
Company name of supplier : SIGNATRY, INC.
Address : P.O. Box 991
            Akron OH 44309
Telephone : 330-255-6000
Emergency telephone : 1-800-424-9300

Recommended use of the chemical and restrictions on use
Recommended use : Antibacterial Soap
Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Flammable liquids : Category 3
Serious eye damage : Category 1

GHS Label element
Hazard pictograms :

Signal Word : Danger
Hazard Statements : H226 Flammable liquid and vapor.
H318 Causes serious eye damage.

Precautionary Statements:

**Prevention:**
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P233 Keep container tightly closed.
- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.

**Response:**
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

**Storage:**
- P403 + P235 Store in a well-ventilated place. Keep cool.

**Disposal:**
- P501 Dispose of contents/container to an approved waste disposal plant.

Other hazards:
Vapors may form explosive mixture with air.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance / Mixture:** Mixture

#### Hazardous ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>Alpha-Sulfo-omega-(dodecylxyloxy)-poly(oxy-1,2-ethanediyl), Ammonium salt</td>
<td>67762-19-0</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>Ammonium dodecyl sulphate</td>
<td>2235-54-3</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>4-chloro-3,5-dimethylphenol</td>
<td>88-04-0</td>
<td>&gt;= 0.1 - &lt; 1</td>
</tr>
</tbody>
</table>

### SECTION 4. FIRST AID MEASURES

**General advice:** In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.

**If inhaled:** If inhaled, remove to fresh air. Get medical attention if symptoms occur.

**In case of skin contact:** Wash with water and soap as a precaution. Get medical attention if symptoms occur.
In case of eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention immediately.

If swallowed: If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed: Causes serious eye damage.

Protection of first-aiders: First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

Notes to physician: Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water spray
Alcohol-resistant foam
Dry chemical
Carbon dioxide (CO2)

Unsuitable extinguishing media: High volume water jet

Specific hazards during firefighting: Do not use a solid water stream as it may scatter and spread fire. Flash back possible over considerable distance. Vapors may form explosive mixtures with air. Exposure to combustion products may be a hazard to health.

Hazardous combustion products: Carbon oxides
Sulfur oxides
Nitrogen oxides (NOx)

Specific extinguishing methods: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

Special protective equipment for fire-fighters: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, : Remove all sources of ignition.
**SECTION 7. HANDLING AND STORAGE**

Technical measures: See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation: Use with local exhaust ventilation. Use only in an area equipped with explosion proof exhaust ventilation.

Advice on safe handling: Avoid inhalation of vapor or mist. Do not swallow. Do not get in eyes. Avoid prolonged or repeated contact with skin. Handle in accordance with good industrial hygiene and safety practice. Non-sparking tools should be used. Keep container tightly closed. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment.

Store in accordance with the particular national regulations. Keep away from heat and sources of ignition.

Materials to avoid:
- Do not store with the following product types:
  - Strong oxidizing agents
  - Organic peroxides
  - Flammable solids
  - Pyrophoric liquids
  - Pyrophoric solids
  - Self-heating substances and mixtures
  - Substances and mixtures which in contact with water emit flammable gases
  - Explosives
  - Gases

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Ingredients with workplace control parameters**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>TWA</td>
<td>1,000 ppm</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1,900 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1,000 ppm</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1,900 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>US WEEL</td>
</tr>
</tbody>
</table>

**Hazardous components without workplace control parameters**

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha-Sulfo-omega-(dodecyloxy)-poly(oxy-1,2-ethanediyl), Ammonium salt</td>
<td>67762-19-0</td>
</tr>
<tr>
<td>Ammonium dodecyl sulphate</td>
<td>2235-54-3</td>
</tr>
<tr>
<td>4-chloro-3,5-dimethylphenol</td>
<td>88-04-0</td>
</tr>
</tbody>
</table>

**Engineering measures**

- Minimize workplace exposure concentrations.
- Use only in an area equipped with explosion proof exhaust ventilation.
- Use with local exhaust ventilation.
- Dust formation may be relevant in the processing of this product. In addition to substance-specific OELs, general limitations of concentrations of particulates in the air at workplaces have to be considered in workplace risk assessment. Relevant limits include: OSHA PEL for Particulates Not Otherwise Regulated of 15 mg/m³ - total dust, 5 mg/m³ - respirable fraction; and ACGIH TWA for Particles (insoluble or poorly soluble) Not Otherwise Specified of 3 mg/m³ - respirable particles, 10 mg/m³ - inhalable particles.

**Personal protective equipment**
Respiratory protection: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection
- Material: Impervious gloves
- Material: Flame retardant gloves

Remarks: Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Eye protection: Wear the following personal protective equipment: Chemical resistant goggles must be worn. If splashes are likely to occur, wear: Face-shield

Skin and body protection: Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. Wear the following personal protective equipment: Flame retardant antistatic protective clothing. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures: Ensure that eye flushing systems and safety showers are located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance: liquid
- Color: clear, amber, brown
- Odor: fruity
- Odor Threshold: No data available
**SAFETY DATA SHEET**

**SIGNATRY® Antimicrobial Foam Cleanser**

| pH | : | 4.5 - 8.5 |
| Melting point/freezing point | : | No data available |
| Initial boiling point and boiling range | : | 83 °C |
| Flash point | : | 58.9 °C |
| Evaporation rate | : | No data available |
| Flammability (solid, gas) | : | Not applicable |
| Upper explosion limit | : | No data available |
| Lower explosion limit | : | No data available |
| Vapor pressure | : | No data available |
| Relative vapor density | : | No data available |
| Density | : | 1.00 g/cm³ |
| Solubility(ies) | : |  |
| Water solubility | : | soluble |
| Partition coefficient: n-octanol/water | : | Not applicable |
| Autoignition temperature | : | No data available |
| Decomposition temperature | : | The substance or mixture is not classified self-reactive. |
| Viscosity | : |  |
| Viscosity, kinematic | : | 10 - 20 mm²/s (20 °C) |
| Explosive properties | : | Not explosive |
| Oxidizing properties | : | The substance or mixture is not classified as oxidizing. |

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Not classified as a reactivity hazard.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions :  |
Flammable liquid and vapor.  |
Vapors may form explosive mixture with air.  |
Can react with strong oxidizing agents.  |
Conditions to avoid : Heat, flames and sparks.
Incompatible materials: Oxidizing agents

Hazardous decomposition products: No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
- Inhalation
- Skin contact
- Ingestion
- Eye contact

Acute toxicity
Not classified based on available information.

Product:

- Acute oral toxicity: Acute toxicity estimate: > 5,000 mg/kg
  Method: Calculation method

Ingredients:

Ethanol:
- Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg
- Acute inhalation toxicity: LC50 (Rat): 124.7 mg/l
  Exposure time: 4 h
  Test atmosphere: vapor

Alpha-Sulfo-omega-(dodecylxyloxy)-poly(oxy-1,2-ethanediyl), Ammonium salt:
- Acute oral toxicity: LD50 (Rat): 4,100 mg/kg
  Method: OECD Test Guideline 401
  Remarks: Based on data from similar materials
- Acute dermal toxicity: LD50 (Rat): > 2,000 mg/kg
  Method: OECD Test Guideline 402
  Assessment: The substance or mixture has no acute dermal toxicity
  Remarks: Based on data from similar materials

Ammonium dodecyl sulphate:
- Acute oral toxicity: LD50 (Rat): 2,000 mg/kg
  Method: EC Directive 92/69/EEC B.1 Acute Toxicity (Oral)
  Remarks: Based on data from similar materials

Propylene glycol:
- Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg
- Acute inhalation toxicity: LC50 (Rabbit): > 159 mg/l, > 51091 ppm
  Exposure time: 4 h
  Test atmosphere: dust/mist
  Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity: LD50 (Rabbit): > 2,000 mg/kg
  Assessment: The substance or mixture has no acute dermal toxicity
**4-chloro-3,5-dimethylphenol:**

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>Acute toxicity estimate: 500 mg/kg</td>
</tr>
<tr>
<td>Method</td>
<td>Expert judgment</td>
</tr>
<tr>
<td>Remarks</td>
<td>Based on harmonised classification in EU regulation 1272/2008, Annex VI</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute inhalation toxicity</td>
<td>LC50 (Rat): &gt; 6.29 mg/l</td>
</tr>
<tr>
<td>Test atmosphere</td>
<td>dust/mist</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute dermal toxicity</td>
<td>LD50 (Rat): &gt; 2,000 mg/kg</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**

Not classified based on available information.

**Product:**

Result: No skin irritation

**Ingredients:**

**Ethanol:**

- **Species:** Rabbit
- **Method:** OECD Test Guideline 404
- **Result:** No skin irritation

**Alpha-Sulfo-omega-(dodecyloxy)-poly(oxy-1,2-ethanediyl), Ammonium salt:**

- **Species:** Rabbit
- **Method:** OECD Test Guideline 404
- **Result:** Skin irritation
- **Remarks:** Based on data from similar materials

**Ammonium dodecyl sulphate:**

- **Species:** Rabbit
- **Method:** OECD Test Guideline 404
- **Result:** Skin irritation

**Propylene glycol:**

- **Species:** Rabbit
- **Method:** OECD Test Guideline 404
- **Result:** No skin irritation

**4-chloro-3,5-dimethylphenol:**

- **Result:** Skin irritation
- **Remarks:** Based on harmonised classification in EU regulation 1272/2008, Annex VI

**Serious eye damage/eye irritation**

Causes serious eye damage.

**Ingredients:**

**Ethanol:**

- **Species:** Rabbit
- **Result:** Irritation to eyes, reversing within 21 days
- **Method:** OECD Test Guideline 405
Alpha-Sulfo-omega-(dodecyloxy)-poly(oxy-1,2-ethanediyl), Ammonium salt:
Species: Rabbit
Result: Irreversible effects on the eye
Remarks: Based on data from similar materials

Ammonium dodecyl sulphate:
Species: Rabbit
Result: Irreversible effects on the eye
Method: OECD Test Guideline 405

Propylene glycol:
Species: Rabbit
Result: No eye irritation
Method: OECD Test Guideline 405

4-chloro-3,5-dimethylphenol:
Result: Irreversible effects on the eye

Respiratory or skin sensitization
Skin sensitization: Not classified based on available information.
Respiratory sensitization: Not classified based on available information.

Product:
Assessment: Does not cause skin sensitization.

Ingredients:

Ethanol:
Test Type: Local lymph node assay (LLNA)
Routes of exposure: Skin contact
Species: Mouse
Result: negative

Alpha-Sulfo-omega-(dodecyloxy)-poly(oxy-1,2-ethanediyl), Ammonium salt:
Test Type: Maximization Test (GPMT)
Routes of exposure: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative
Remarks: Based on data from similar materials

Ammonium dodecyl sulphate:
Test Type: Maximization Test (GPMT)
Routes of exposure: Skin contact
Species: Guinea pig
Result: negative
Remarks: Based on data from similar materials

Propylene glycol:
Test Type: Maximization Test (GPMT)
Routes of exposure: Skin contact
Species: Guinea pig
Result: negative
4-chloro-3,5-dimethylphenol:
Assessment: Probability or evidence of skin sensitization in humans
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Germ cell mutagenicity
Not classified based on available information.

Ingredients:
Ethanol:
Genotoxicity in vitro: Test Type: In vitro mammalian cell gene mutation test
Result: negative
Genotoxicity in vivo: Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Species: Mouse
Application Route: Ingestion
Result: negative

Alpha-Sulfo-omega-(dodecyloxy)-poly(oxy-1,2-ethanediyl), Ammonium salt:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
Remarks: Based on data from similar materials
: Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative
Remarks: Based on data from similar materials
Genotoxicity in vivo: Test Type: Mutagenicity (in vivo mammalian bone-marrow
cytogenetic test, chromosomal analysis)
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 475
Result: negative
Remarks: Based on data from similar materials

Ammonium dodecyl sulphate:
Genotoxicity in vitro: Test Type: In vitro mammalian cell gene mutation test
Result: negative
Remarks: Based on data from similar materials
Genotoxicity in vivo: Test Type: Mammalian erythrocyte micronucleus test (in vivo
cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Propylene glycol:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Genotoxicity in vivo: Test Type: In vivo micronucleus test
Species: Mouse
Application Route: Intraperitoneal injection
Result: negative

4-chloro-3,5-dimethylphenol:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Carcinogenicity
Not classified based on available information.

Ingredients:
Ammonium dodecyl sulphate:
Species: Rat
Application Route: Ingestion
Exposure time: 2 Years
Result: negative
Remarks: Based on data from similar materials

Propylene glycol:
Species: Rat
Application Route: Ingestion
Exposure time: 2 Years
Result: negative

IARC
No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity
Not classified based on available information.

Ingredients:
Ethanol:
Effects on fertility: Test Type: Two-generation reproduction toxicity study
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative

Alpha-Sulfo-omega-(dodecyloxy)-poly(oxy-1,2-ethanediyl), Ammonium salt:
Effects on fertility: Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials
### Effects on fetal development

**Ammonium dodecyl sulphate:**
- Test Type: Two-generation reproduction toxicity study
- Species: Rat
- Application Route: Ingestion
- Result: negative
- Remarks: Based on data from similar materials

**Propylene glycol:**
- Test Type: Embryo-fetal development
- Species: Mouse
- Application Route: Ingestion
- Result: negative

### STOT - single exposure
Not classified based on available information.

### STOT - repeated exposure
Not classified based on available information.

### Repeated dose toxicity

#### Ingredients:

**Ethanol:**
- Species: Rat
- NOAEL: 2,400 mg/kg
- Application Route: Ingestion
- Exposure time: 2 y

**Alpha-Sulfo-omega-(dodecyloxy)-poly(oxy-1,2-ethanediyl), Ammonium salt:**
- Species: Rat
- NOAEL: > 225 mg/kg
- Application Route: Ingestion
- Exposure time: 90 d
- Method: OECD Test Guideline 408
- Remarks: Based on data from similar materials

**Propylene glycol:**
- Species: Rat
- NOAEL: 1,700 mg/kg
- Application Route: Ingestion
- Exposure time: 2 y

**4-chloro-3,5-dimethylphenol:**
- Species: Rabbit
- LOAEL: 180 mg/kg
SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

**Ingredients:**

**Ethanol:**

- **Toxicity to fish:** LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l
  Exposure time: 96 h
- **Toxicity to daphnia and other aquatic invertebrates:** EC50 (Daphnia magna (Water flea)): > 1,000 mg/l
  Exposure time: 48 h
- **Toxicity to algae:** EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l
  Exposure time: 72 h
  Method: OECD Test Guideline 201
- **Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):** NOEC (Daphnia magna (Water flea)): 9.6 mg/l
  Exposure time: 9 d
- **Toxicity to bacteria:** EC50 (Photobacterium phosphoreum): 32.1 mg/l
  Exposure time: 0.25 h

**Alpha-Sulfo-omega-(dodecyloxy)-poly(oxy-1,2-ethanediyl), Ammonium salt:**

- **Toxicity to fish:** LC50 (Danio rerio (zebra fish)): 7.1 mg/l
  Exposure time: 96 h
  Method: OECD Test Guideline 203
  Remarks: Based on data from similar materials
- **Toxicity to daphnia and other aquatic invertebrates:** EC50 (Daphnia magna (Water flea)): 7.4 mg/l
  Exposure time: 48 h
  Method: OECD Test Guideline 202
  Remarks: Based on data from similar materials
- **Toxicity to algae:** ErC50 (Desmodesmus subspicatus (green algae)): 27.7 mg/l
  Exposure time: 72 h
  Method: OECD Test Guideline 201
  Remarks: Based on data from similar materials
  NOEC (Desmodesmus subspicatus (green algae)): 0.95 mg/l
  Exposure time: 72 h
  Method: OECD Test Guideline 201
  Remarks: Based on data from similar materials
- **Toxicity to fish (Chronic toxicity):** NOEC (Oncorhynchus mykiss (rainbow trout)): 0.14 mg/l
  Exposure time: 28 d
  Method: OECD Test Guideline 204
  Remarks: Based on data from similar materials
### Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

- **NOEC** (Daphnia magna (Water flea)): 0.27 mg/l
  - Exposure time: 21 d
  - Remarks: Based on data from similar materials

- **EC50** (Daphnia magna (Water flea)): 4.7 mg/l
  - Exposure time: 48 h
  - Method: Tested according to Directive 92/69/EEC.
  - Remarks: Based on data from similar materials

- **NOEC** (Ceriodaphnia dubia (water flea)): 0.88 mg/l
  - Exposure time: 7 d
  - Remarks: Based on data from similar materials

### Toxicity to bacteria

- **EC10** (Pseudomonas putida): > 10 g/l
  - Exposure time: 16 h
  - Method: DIN 38 412 Part 8
  - Remarks: Based on data from similar materials

- **EC0** (Pseudomonas putida): 409 mg/l
  - Exposure time: 16 h
  - Method: DIN 38 412 Part 8
  - Remarks: Based on data from similar materials

### Ammonium dodecyl sulphate:

- **LC50** (Oncorhynchus mykiss (rainbow trout)): 3.6 mg/l
  - Exposure time: 96 h
  - Method: OECD Test Guideline 203
  - Remarks: Based on data from similar materials

- **EC50** (Daphnia magna (Water flea)): 4.7 mg/l
  - Exposure time: 48 h
  - Method: Tested according to Directive 92/69/EEC.
  - Remarks: Based on data from similar materials

- **ErC50** (Desmodesmus subspicatus (green algae)): > 20 mg/l
  - Exposure time: 72 h
  - Remarks: Based on data from similar materials

- **EC10** (Desmodesmus subspicatus (green algae)): 5.4 mg/l
  - Exposure time: 72 h
  - Remarks: Based on data from similar materials

- **NOEC** (Ceriodaphnia dubia (water flea)): 0.88 mg/l
  - Exposure time: 7 d
  - Remarks: Based on data from similar materials

### Toxicity to algae

- **EC50** (Skeletonema costatum (marine diatom)): 19,000 mg/l
  - Exposure time: 48 h
  - Method: OECD Test Guideline 201

### Propylene glycol:

- **LC50** (Oncorhynchus mykiss (rainbow trout)): 40,613 mg/l
  - Exposure time: 96 h

- **EC50** (Ceriodaphnia dubia (water flea)): 18,340 mg/l
  - Exposure time: 48 h

- **EC50** (Skeletonema costatum (marine diatom)): 19,000 mg/l
  - Exposure time: 48 h
  - Method: OECD Test Guideline 201

- **Chronic Toxicity Value**: 2,500 mg/l
  - Exposure time: 30 d

- **NOEC** (Ceriodaphnia dubia (water flea)): 29,000 mg/l
aquatic invertebrates (Chronic toxicity) Exposure time: 7 d

Toxicity to bacteria: NOEC (Pseudomonas putida): > 20,000 mg/l Exposure time: 18 h

4-chloro-3,5-dimethylphenol:

Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)): 0.76 mg/l Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 7.7 mg/l Exposure time: 48 h

M-Factor (Acute aquatic toxicity): 1

Persistence and degradability

Ingredients:

Ethanol:

Biodegradability: Result: Readily biodegradable. Biodegradation: 84 % Exposure time: 20 d

Alpha-Sulfo-omega-(dodecyloxy)-poly(oxy-1,2-ethanediyl), Ammonium salt:


Ammonium dodecyl sulphate:

Biodegradability: Result: Readily biodegradable. Biodegradation: 75.7 % Exposure time: 28 d Method: OECD Test Guideline 301B Remarks: Based on data from similar materials

Propylene glycol:

Biodegradability: Result: Readily biodegradable. Biodegradation: 98.3 % Exposure time: 28 d Method: OECD Test Guideline 301F

Bioaccumulative potential

Ingredients:

Ethanol:

Partition coefficient: n-octanol/water: log Pow: -0.35

Alpha-Sulfo-omega-(dodecyloxy)-poly(oxy-1,2-ethanediyl), Ammonium salt:

Partition coefficient: n-octanol/water: log Pow: 0.3
Ammonium dodecyl sulphate:
Partition coefficient: n-octanol/water : log Pow: 0.8 - 0.91

Propylene glycol:
Partition coefficient: n-octanol/water : log Pow: -1.07

4-chloro-3,5-dimethylphenol:
Partition coefficient: n-octanol/water : log Pow: 3.27

Mobility in soil
No data available

Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues : Dispose of in accordance with local regulations.
Contaminated packaging : Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International Regulation

UNRTDG
Not regulated as a dangerous good

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

49 CFR
Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know
CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards
- Fire Hazard
- Acute Health Hazard

SARA 302
- No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313
- This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Pennsylvania Right To Know

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>70 - 90 %</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>1 - 5 %</td>
</tr>
<tr>
<td>Ammonium dodecyl sulphate</td>
<td>2235-54-3</td>
<td>1 - 5 %</td>
</tr>
<tr>
<td>Alpha-Sulfo-omega-(dodecyloxy)-poly(oxy-1,2-ethanediyl), Ammonium salt</td>
<td>67762-19-0</td>
<td>1 - 5 %</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>1 - 5 %</td>
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<tr>
<td>Ammonium sulfate</td>
<td>7783-20-2</td>
<td>0.1 - 1 %</td>
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<tr>
<td>Propan-2-ol</td>
<td>67-63-0</td>
<td>0.1 - 1 %</td>
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New Jersey Right To Know

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>Percentage</th>
</tr>
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<tbody>
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</tr>
</tbody>
</table>

California Prop 65
This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:
- AICS
  - All ingredients listed or exempt.

Inventories
- AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)
SECTION 16. OTHER INFORMATION

Further information

<table>
<thead>
<tr>
<th>NFPA:</th>
<th>HMIS III:</th>
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<tbody>
<tr>
<td>Flammability</td>
<td>HEALTH</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Health</td>
<td>FLAMMABILITY</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Instability</td>
<td>PHYSICAL HAZARD</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Special hazard.

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL : USA. NIOSH Recommended Exposure Limits
OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
US WEEL : USA. Workplace Environmental Exposure Levels (WEEL)
ACGIH / STEL : Short-term exposure limit
NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA Z-1 / TWA : 8-hour time weighted average
US WEEL / TWA : 8-hr TWA


Revision Date : 04/08/2015

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.