SAFETY DATA SHEET

SSS Foam Fresh Antimicrobial Hand Soap

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: SSS Foam Fresh Antimicrobial Hand Soap

Product code: 34082; 34086

Manufacturer or supplier's details
Company name of supplier: TRIPLE S
Address: 2 Executive Park Drive
          Billerica, MA 01862
Telephone: 978-667-7900
Emergency telephone: 888-779-1339
E-mail address of person responsible for the SDS: info@triple-s.com

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.

Prepared by: info@triple-s.com

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER

<table>
<thead>
<tr>
<th>Appearance</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>clear, amber, brown</td>
</tr>
<tr>
<td>Odor</td>
<td>fruity</td>
</tr>
<tr>
<td>Hazard Summary</td>
<td>Combustible liquid and vapor.</td>
</tr>
</tbody>
</table>
Corrosive

**WHMIS Regulatory status**
- This product, material or substance is a WHMIS controlled product per Sections 33 - 66, Part IV of the CPR.

**Potential Health Effects**

**Inhalation**
- No significant effects expected from a single short-term exposure.

**Skin**
- No significant irritation expected from a single short-term exposure.

**Eyes**
- Causes eye burns.
  - May cause permanent eye injury.

**Ingestion**
- No significant effects expected from a single short-term exposure.

**Aggravated Medical Condition**
- None known.

**Carcinogenicity**:

**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.

**ACGIH**
- Confirmed animal carcinogen with unknown relevance to humans

<table>
<thead>
<tr>
<th>Substance / Mixture</th>
<th>Hazardous ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixture</td>
<td>Ethanol 64-17-5</td>
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<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>
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<tr>
<td>Alpha-Sulfo-omega-(dodecyloxy)-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>
</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
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.

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 fire fighting: 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, protective equipment and emergency procedures:
- Remove all sources of ignition.
- Use personal protective equipment.
- Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions:
- Discharge into the environment must be avoided.
- Prevent further leakage or spillage if safe to do so.
- Prevent spreading over a wide area (e.g. by containment or oil barriers).
- Retain and dispose of contaminated wash water.
- Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up:
- Non-sparking tools should be used.
- Soak up with inert absorbent material.
- Suppress (knock down) gases/vapors/mists with a water spray jet.
- For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container.
- Clean up remaining materials from spill with suitable absorbent.
- Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
- Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

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.
Conditions for safe storage: Keep in properly labeled containers. Keep tightly closed. Keep in a cool, well-ventilated place. 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>
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</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>TWA</td>
<td>1,000 ppm 1,880 mg/m³</td>
<td>CA AB OEL</td>
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<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>1,000 ppm</td>
<td>CA BC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA EV</td>
<td>1,000 ppm 1,880 mg/m³</td>
<td>CA QC OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>1,000 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>TWA (aerosol)</td>
<td>10 mg/m³</td>
<td>CA ON OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Vapour and aerosols)</td>
<td>50 ppm 155 mg/m³</td>
<td>CA ON OEL</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: Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Filter type: Combined particulates and organic vapor type

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

pH: 4.5 - 8.5

Melting point/freezing point: No data available

Initial boiling point and boiling: 83 °C
Material Safety Data Sheet

QSC Foam Fresh Antimicrobial Hand Soap

<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date:</th>
<th>MSDS Number:</th>
<th>Date of last issue:</th>
<th>Date of first issue:</th>
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<tr>
<td>2.0</td>
<td>04/08/2015</td>
<td>31375-00005</td>
<td>03/19/2015</td>
<td>12/11/2014</td>
</tr>
</tbody>
</table>

### Range
- 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

Acute toxicity
Not classified based on available information.

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-(dodecyloxy)-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

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

**Serious eye damage/eye irritation**
Causes eye burns.

**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

**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

**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

Genotoxicity in vitro: 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

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

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

**Ammonium dodecyl sulphate:**

Effects on fetal development  
:  Test Type: Embryo-fetal development  
Species: Rat  
Application Route: Ingestion  
Result: negative  
Remarks: Based on data from similar materials

**Propylene glycol:**

Effects on fertility  
:  Species: Mouse  
Application Route: Ingestion  
Result: negative

Effects on fetal development  
:  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
Aspiration toxicity
Not classified based on available information.

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-(dodecylxoy)-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: NOEC (Daphnia magna (Water flea)): 0.27 mg/l
### Ammonium dodecyl sulphate:

**Toxicity to fish**
- **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

**Toxicity to daphnia and other aquatic invertebrates**
- **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

**Toxicity to algae**
- **EC50** (Desmodesmus subspicatus (green algae)): > 20 mg/l
  - Exposure time: 72 h
  - Remarks: Based on data from similar materials

**Toxicity to daphnia and other aquatic invertebrates**
- **NOEC** (Ceriodaphnia dubia (water flea)): 0.88 mg/l
  - Exposure time: 7 d
  - Remarks: Based on data from similar materials

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

### Propylene glycol:

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

**Toxicity to daphnia and other aquatic invertebrates**
- **EC50** (Ceriodaphnia dubia (water flea)): 18,340 mg/l
  - Exposure time: 48 h

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

**Toxicity to fish (Chronic toxicity)**
- Chronic Toxicity Value: 2,500 mg/l
  - Exposure time: 30 d

**Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)**
- **NOEC** (Ceriodaphnia dubia (water flea)): 29,000 mg/l
  - Exposure time: 7 d
Toxicity to bacteria: NOEC (Pseudomonas putida): > 20,000 mg/l  
Exposure time: 18 h

### 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:**
- **Biodegradability:** Result: Readily biodegradable.  
  Biodegradation: 100 %  
  Exposure time: 28 d  
  Remarks: Based on data from similar materials

**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

### 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
TDG
Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

WHMIS Classification : B3: Combustible Liquid
                      E: Corrosive Material

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

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), KECl (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)
SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
CA BC OEL : Canada. British Columbia OEL
CA ON OEL : Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act.
CA QC OEL : Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
ACGIH / STEL : Short-term exposure limit
CA AB OEL / TWA : 8-hour Occupational exposure limit
CA BC OEL / STEL : short-term exposure limit
CA ON OEL / TWA : Time-Weighted Average Limit (TWA)
CA QC OEL / TWAEV : Time-weighted average exposure value


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.

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