SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : GOJO® Antibacterial Foam Soap

Manufacturer or supplier's details
Company : GOJO Australasia Pty Ltd
Address : Suite 14A, Unit 1, Level 1
          Lakes Business Park, 2B Lord Street
          Botany NSW 2019
Telephone : +612 9016 3885
Emergency telephone number : 1800 634 340

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/eye irritation : Category 1
Acute aquatic toxicity : Category 1
Chronic aquatic toxicity : Category 1

GHS Label element
Hazard pictograms :

Signal word : Danger
Hazard statements:
- H226 Flammable liquid and vapour.
- H318 Causes serious eye damage.
- H410 Very toxic to aquatic life with long lasting effects.

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.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**
- P303 + P361 + P353 IF ON SKIN (or hair): Remove/ 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.
- P391 Collect spillage.

**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 which do not result in classification**
Vapours may form explosive mixture with air.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance / Mixture:** Mixture

**Hazardous components**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol</td>
<td>57-55-6</td>
<td>&gt;= 10 - &lt; 30</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>Dodecanoic acid</td>
<td>143-07-7</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>Ethanolamine</td>
<td>141-43-5</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>Imidazolium compounds, 1-[(2-(carboxymethoxy)ethyl)-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts</td>
<td>68650-39-5</td>
<td>&lt; 10</td>
</tr>
<tr>
<td>I-(+)-Lactic acid</td>
<td>79-33-4</td>
<td>&lt; 10</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. FIREFIGHTING MEASURES
Suitable extinguishing media
- Water spray
- Alcohol-resistant foam
- Carbon dioxide (CO2)
- Dry chemical

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.
- Vapours may form explosive mixtures with air.
- Exposure to combustion products may be a hazard to health.

Hazardous combustion products
- Carbon oxides
- Nitrogen oxides (NOx)
- Metal oxides

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.
so. Evacuate area.

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

Hazchem Code: •2Y

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/vapours/mists with a water spray jet. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked 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 vapour 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.

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.

Conditions for safe storage:
Keep in properly labelled 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:
- Self-reactive substances and mixtures
- Organic peroxides
- Oxidizing agents
- Flammable gases
- Pyrophoric liquids
- Pyrophoric solids
- Self-heating substances and mixtures
- Poisonous gases
- Explosives

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</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>Propylene glycol</td>
<td>57-55-6</td>
<td>TWA (particulate)</td>
<td>10 mg/m³</td>
<td>AU OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Total (vapour and particles))</td>
<td>150 ppm 474 mg/m³</td>
<td>AU OEL</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>TWA</td>
<td>1,000 ppm 1,880 mg/m³</td>
<td>AU OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>1,000 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Ethanolamine</td>
<td>141-43-5</td>
<td>TWA</td>
<td>3 ppm 7.5 mg/m³</td>
<td>AU OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>6 ppm 15 mg/m³</td>
<td>AU OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>3 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>6 ppm</td>
<td>ACGIH</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.

**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 vapour type

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

**Remarks**: Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and 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).

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>clear, Colorless to pale yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>slight alcoholic</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>7.8 - 9.7</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
</tr>
</tbody>
</table>
**Flash point**: 56.00 °C

**Evaporation rate**: No data available

**Flammability (solid, gas)**: Not applicable

**Upper explosion limit**: No data available

**Lower explosion limit**: No data available

**Vapour pressure**: No data available

**Relative vapour density**: No data available

**Density**: 1.00 g/cm³

**Solubility(ies)**

- **Water solubility**: soluble

**Partition coefficient: n-octanol/water**: Not applicable

**Auto-ignition temperature**: No data available

**Decomposition temperature**: The substance or mixture is not classified self-reactive.

**Viscosity**

- **Viscosity, kinematic**: 10 - 20 mm²/s (20.00 °C)

**Explosive properties**: Not explosive

**Oxidizing properties**: The substance or mixture is not classified as oxidizing.

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**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 vapour.
- Vapours 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

Exposure routes: Inhalation
            Skin contact
            Ingestion
            Eye contact

Acute toxicity
Not classified based on available information.

**Product:**

Acute oral toxicity: Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Acute inhalation toxicity: Acute toxicity estimate: > 20 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity: Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

**Components:**

**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

**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: vapour

**Dodecanoic acid:**
Acute oral toxicity: LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity: LC50 (Rat): > 0.162 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Remarks: Based on data from similar materials

Acute dermal toxicity: LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity  
Remarks: Based on data from similar materials

**Ethanolamine:**  
Acute oral toxicity: LD50 (Rat): 1,515 mg/kg  
Acute inhalation toxicity: Acute toxicity estimate: 11 mg/l  
Test atmosphere: vapour  
Method: Expert judgement  
Remarks: Based on harmonised classification in EU regulation 1272/2008, Annex VI

Acute dermal toxicity: LD50 (Rabbit): 1,025 mg/kg

**Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts:**  
Acute oral toxicity: LD50 (Rat, male): > 5,000 mg/kg  
Remarks: Based on data from similar materials

Acute dermal toxicity: LD50 (Rabbit): > 5,000 mg/kg  
Method: OECD Test Guideline 402  
Remarks: Based on data from similar materials

**l-(+)-Lactic acid:**  
Acute oral toxicity: LD50 (Rat, female): 3,543 mg/kg  
Acute inhalation toxicity: LC50 (Rat): > 7.94 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403

Acute dermal toxicity: LD50 (Rabbit): > 2,000 mg/kg

**Skin corrosion/irritation**  
Not classified based on available information.

**Product:**  
Result: No skin irritation

**Components:**  
**Propylene glycol:**  
Species: Rabbit  
Method: OECD Test Guideline 404  
Result: No skin irritation

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

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

**Ethanolamine:**
Species: Rabbit
Result: Corrosive after 3 minutes to 1 hour of exposure

**Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-nor coco alkyl, hydroxides, sodium salts:**
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation
Remarks: Based on data from similar materials

**l-(+)-Lactic acid:**
Species: Rabbit
Result: Skin irritation

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

**Components:**

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

**Ethanol:**
Species: Rabbit
Result: Irritation to eyes, reversing within 21 days
Method: OECD Test Guideline 405

**Dodecanoic acid:**
Species: Rabbit
Result: Irreversible effects on the eye
Method: OECD Test Guideline 405

**Ethanolamine:**
Species: Rabbit
Result: Irreversible effects on the eye

**Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-nor coco alkyl, hydroxides, sodium salts:**
Species: Rabbit
Result: Irreversible effects on the eye
Method: OECD Test Guideline 405
Remarks: Based on data from similar materials

**l-(+)-Lactic acid:**
Species: Chicken eye
Result: Irreversible effects on the eye

**Respiratory or skin sensitisation**
Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.
Product:
Assessment: Does not cause skin sensitisation.

Components:
Propylene glycol:
Test Type: Maximisation Test (GPMT)
Exposure routes: Skin contact
Species: Guinea pig
Result: negative

Ethanol:
Test Type: Local lymph node assay (LLNA)
Exposure routes: Skin contact
Species: Mouse
Result: negative

Dodecanoic acid:
Test Type: Maximisation Test (GPMT)
Exposure routes: Skin contact
Species: Guinea pig
Result: negative

Ethanolamine:
Test Type: Maximisation Test (GPMT)
Exposure routes: Skin contact
Species: Guinea pig
Result: negative

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcocco alkyl, hydroxides, sodium salts:
Test Type: Maximisation Test (GPMT)
Exposure routes: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative
Remarks: Based on data from similar materials

L-(+)-Lactic acid:
Test Type: Buehler Test
Exposure routes: Skin contact
Species: Guinea pig
Result: negative

Chronic toxicity

Germ cell mutagenicity
Not classified based on available information.

Components:
Propylene glycol:
Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Genotoxicity in vitro: Test Type: Chromosome aberration test in vitro
Result: negative
Remarks: Based on data from similar materials

Species: Mouse
Application Route: Intraperitoneal injection

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
Remarks: Based on data from similar materials

Dodecanoic acid:
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

Species: Mouse
Application Route: Ingestion
Result: negative

Ethanolamine:
Genotoxicity in vitro: Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative
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

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts:
Genotoxicity in vitro: Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative
Remarks: Based on data from similar materials

Test Type: Bacterial reverse mutation assay (AMES)
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

L-(+)-Lactic acid:
Genotoxicity in vitro: Test Type: Chromosome aberration test in vitro
Metabolic activation: with and without metabolic activation
Result: negative
Remarks: Based on data from similar materials

Test Type: Bacterial reverse mutation assay (AMES)
Metabolic activation: with and without metabolic activation
Result: negative

Carcinogenicity
Not classified based on available information.

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

I-(+)-Lactic acid:
Species: Rat
Application Route: Ingestion
Exposure time: 2 Years
Result: negative
Remarks: Based on data from similar materials

Reproductive toxicity
Not classified based on available information.

Components:
Propylene glycol:
Effects on fertility
Species: Mouse
Application Route: Ingestion
Result: negative

Effects on foetal development
Test Type: Embryo-foetal development
Species: Mouse
Application Route: Ingestion
Result: negative

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

Dodecanoic acid:
Effects on fertility
Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development
Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 422
Result: negative
Remarks: Based on data from similar materials

**Ethanolamine:**
**Effects on fertility:**
- Test Type: Two-generation reproduction toxicity study
- Species: Rat
- Application Route: Ingestion
- Result: negative

**Effects on foetal development:**
- Test Type: Embryo-foetal development
- Species: Rat
- Application Route: Ingestion
- Method: OECD Test Guideline 414
- Result: negative

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

**Components:**
- Ethanolamine:
  Assessment: May cause respiratory irritation.

- l-(+)-Lactic acid:
  Assessment: May cause respiratory irritation.

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

**Components:**
- Ethanolamine:
  Exposure routes: inhalation (dust/mist/fume)
  Assessment: No significant health effects observed in animals at concentrations of 0.2 mg/l/6h/d or less.

**Repeated dose toxicity**

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

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

- Dodecanoic acid:
  - Species: Rat
  - NOAEL: 10,000 mg/kg
  - Application Route: Ingestion
  - Exposure time: 18 w
Ethanolamine:
Species: Rat
NOAEL: 150 mg/m3
Application Route: inhalation (dust/mist/fume)
Exposure time: 28 d

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts:
Species: Rat, female
NOAEL: 250 mg/kg
LOAEL: 500 mg/kg
Application Route: Ingestion
Exposure time: 28 d
Remarks: Based on data from similar materials

l-(+)-Lactic acid:
Species: Rat
NOAEL: >= 886 mg/kg
Application Route: Skin contact
Exposure time: 13 w

Aspiration toxicity
Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

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

Ethanol:
Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l
Exposure time: 96 h
<table>
<thead>
<tr>
<th>Substance</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
<th>Toxicity to algae</th>
<th>Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)</th>
<th>Toxicity to bacteria</th>
<th>Dodecanoic acid:</th>
<th>Toxicity to fish (Chronic toxicity)</th>
<th>Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)</th>
<th>Toxicity to bacteria</th>
<th>Ethanolamine:</th>
<th>Toxicity to fish</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
<th>Toxicity to algae</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EC50 (Daphnia magna (Water flea)): &gt; 1,000 mg/l</td>
<td>EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l</td>
<td>NOEC (Daphnia magna (Water flea)): 9.6 mg/l</td>
<td>EC50 (Photobacterium phosphoreum): 32.1 mg/l</td>
<td>LC50 (Oryzias latipes (Japanese medaka)): 5 mg/l</td>
<td>NOEC (Danio rerio (zebra fish)): 2 mg/l</td>
<td>NOEC (Daphnia magna (Water flea)): 0.47 mg/l</td>
<td>EC10 (Pseudomonas putida): &gt; 1,000 mg/l</td>
<td>LC50 (Cyprinus carpio (Carp)): 349 mg/l</td>
<td>EC50 (Daphnia magna (Water flea)): 65 mg/l</td>
<td>ErC50 (Selenastrum capricornutum (green algae)): 2.8 mg/l</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exposure time: 48 h</td>
<td>Exposure time: 72 h</td>
<td>Exposure time: 9 d</td>
<td>Exposure time: 0.25 h</td>
<td>Exposure time: 96 h</td>
<td>Exposure time: 28 d</td>
<td>Exposure time: 21 d</td>
<td>Exposure time: 30 min</td>
<td>Exposure time: 96 h</td>
<td>Exposure time: 48 h</td>
<td>Exposure time: 72 h</td>
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Remarks: No toxicity at the limit of solubility

Remarks: Based on data from similar materials
NOEC (Scenedesmus capricornutum (fresh water algae)): 1 mg/l
Exposure time: 72 h

Toxicity to fish (Chronic toxicity):
NOEC (Oryzias latipes (Orange-red killifish)): 1.24 mg/l
Exposure time: 41 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):
NOEC (Daphnia magna (Water flea)): 0.85 mg/l
Exposure time: 21 d

Toxicity to bacteria:
EC50 (Pseudomonas putida): 110 mg/l
Exposure time: 17 h

Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts:

Toxicity to fish:
LC50 (Oncorhynchus mykiss (rainbow trout)): 4.2 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)): 17.9 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: Based on data from similar materials

Toxicity to algae:
NOEC (Pseudokirchneriella subcapitata (green algae)): 3.2 mg/l
Exposure time: 72 h
Remarks: Based on data from similar materials

ErC50 (Pseudokirchneriella subcapitata (green algae)): 10 mg/l
Exposure time: 72 h
Remarks: Based on data from similar materials

l-(+)-Lactic acid:

Toxicity to fish:
LC50 (Oncorhynchus mykiss (rainbow trout)): 130 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:
EC50 (Daphnia magna (Water flea)): 250 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae:
NOEC (Selenastrum capricornutum (fresh water algae)): 1.9 g/l
Exposure time: 72 h
Method: OECD Test Guideline 201

EC50 (Selenastrum capricornutum (fresh water algae)): 3.5 g/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Toxicity to bacteria : EC50: > 100 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209

Persistence and degradability

**Components:**

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

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

**Dodecanoic acid:**
Biodegradability : Result: Readily biodegradable
Biodegradation: 86 %
Exposure time: 30 d
Method: OECD Test Guideline 301D

**Ethanolamine:**
Biodegradability : Result: Readily biodegradable
Biodegradation: > 90 %
Exposure time: 21 d

**Imidazolium compounds, 1-[2-(carboxymethoxy)ethyl]-1-(carboxymethyl)-4,5-dihydro-2-norcoco alkyl, hydroxides, sodium salts:**
Biodegradability : Result: Readily biodegradable
Biodegradation: 79 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Remarks: Based on data from similar materials

**l-(+)-Lactic acid:**
Biodegradability : Result: Not readily biodegradable.
Biodegradation: 67 %
Exposure time: 20 d

Bioaccumulative potential

**Components:**

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

**Ethanol:**
Partition coefficient: n-octanol/water : log Pow: -0.35
Dodecanoic acid:
Bioaccumulation: Species: Fish
Bioconcentration factor (BCF): 234 - 288
Remarks: Based on data from similar materials

Partition coefficient: n-octanol/water: Pow: 4.6

Ethanolamine:
Partition coefficient: n-octanol/water: log Pow: -1.91

l-(+)-Lactic acid:
Partition coefficient: n-octanol/water: log Pow: -0.6

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
UN number: UN 1170
Proper shipping name: ETHYL ALCOHOL SOLUTION
Class: 3
Packing group: III
Labels: 3

IATA-DGR
UN/ID No.: UN 1170
Proper shipping name: Ethanol solution
Class: 3
Packing group: III
Labels: Flammable Liquids
Packing instruction (cargo aircraft): 366
SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Standard for the Uniform Scheduling of Medicines and Poisons

Prohibition/Licensing Requirements

The components 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

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

Date format: dd.mm.yyyy

Full text of other abbreviations
ACGIH : USA. ACGIH Threshold Limit Values (TLV)
AU OEL : Australia. Workplace Exposure Standards for Airborne Contaminants.
ACGIH / TWA : 8-hour, time-weighted average
ACGIH / STEL : Short-term exposure limit
AU OEL / TWA : Exposure standard - time weighted average
AU OEL / STEL : Exposure standard - short term exposure limit

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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