SAFETY DATA SHEET
Techspray Ecoline Contact Cleaner

Section 1. Identification

GHS product identifier : Techspray Ecoline Contact Cleaner
Other means of identification : Contact Cleaner
Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against
Not applicable.

Supplier's details : Techspray
8125 Cobb Center Drive
Kennesaw, GA 30152
Tel: 800-858-4043
1 703-527-3887

Emergency telephone number (with hours of operation) : Chemtrec - 1-800-858-4043
CANTUC (Canadian Transportation): (613) 996-6666
Emergency phone: (800) 858-4043
24/7

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
GASES UNDER PRESSURE Compressed gas
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 25%

GHS label elements
Hazard pictograms :

Signal word : Danger
Hazard statements : Extremely flammable aerosol.
Causes serious eye irritation.
Contains gas under pressure; may explode if heated.

Precautionary statements
Prevention : Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Pressurized container: Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source. 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 attention.
Storage : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.
Disposal : Not applicable.
Hazards not otherwise classified : None known.

Date of issue/Date of revision : 5/20/2015. Date of previous issue : 5/5/2015. Version : 2
http://www.techni-tool.com
Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other means of identification</td>
<td>Contact Cleaner</td>
</tr>
</tbody>
</table>

**CAS number/other identifiers**

<table>
<thead>
<tr>
<th>CAS number</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>1622-10S</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>10 - 20</td>
<td>64-17-5</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>7 - 15</td>
<td>67-63-0</td>
</tr>
<tr>
<td>methanol</td>
<td>1 - 3</td>
<td>67-56-1</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**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 require reporting in this section.**

**Section 4. First aid measures**

**Description of necessary first aid measures**

- **Eye contact**: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

- **Inhalation**: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

- **Skin contact**: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

- **Ingestion**: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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

- **Potential acute health effects**
  - **Eye contact**: Causes serious eye irritation.
  - **Inhalation**: Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
  - **Skin contact**: May cause skin irritation.
  - **Ingestion**: Irritating to mouth, throat and stomach.

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Section 4. First aid measures

Eye contact: Adverse symptoms may include the following:
- pain or irritation
- watering
- redness

Inhalation: Adverse symptoms may include the following:
- respiratory tract irritation
- coughing

Skin contact: Adverse symptoms may include the following:
- irritation
- redness
- dryness
- cracking

Ingestion: Adverse symptoms may include the following:
- Irritating to mouth, throat and stomach.
- nausea or vomiting
- central nervous system depression

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

Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical: Extremely flammable aerosol. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products: Decomposition products may include the following materials:
- carbon dioxide
- carbon monoxide
- halogenated compounds
- carbonyl halides

Special protective actions for fire-fighters: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in an appropriate waste disposal container. Dispose of via a licensed waste 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

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this 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. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination.
## Section 8. Exposure controls/personal protection

### Ingredient name | Exposure limits
---|---
**Ethyl alcohol** | ACGIH TLV (United States, 4/2014).  
STEL: 1000 ppm 15 minutes.  
NIOSH REL (United States, 10/2013).  
TWA: 1900 mg/m³ 10 hours.  
TWA: 1000 ppm 10 hours.  
OSHA PEL (United States, 2/2013).  
TWA: 1900 mg/m³ 8 hours.  
TWA: 1000 ppm 8 hours.  
TWA: 1900 mg/m³ 8 hours.  
TWA: 1000 ppm 8 hours.  
**Isopropyl alcohol** | ACGIH TLV (United States, 4/2014).  
STEL: 400 ppm 15 minutes.  
TWA: 200 ppm 8 hours.  
NIOSH REL (United States, 10/2013).  
STEL: 1225 mg/m³ 15 minutes.  
STEL: 500 ppm 15 minutes.  
TWA: 980 mg/m³ 10 hours.  
TWA: 400 ppm 10 hours.  
OSHA PEL (United States, 2/2013).  
TWA: 980 mg/m³ 8 hours.  
TWA: 400 ppm 8 hours.  
STEL: 1225 mg/m³ 15 minutes.  
STEL: 500 ppm 15 minutes.  
TWA: 980 mg/m³ 8 hours.  
TWA: 400 ppm 8 hours.  
**Methanol** | ACGIH TLV (United States, 4/2014).  
Absorbed through skin.  
STEL: 328 mg/m³ 15 minutes.  
STEL: 250 ppm 15 minutes.  
TWA: 262 mg/m³ 8 hours.  
TWA: 200 ppm 8 hours.  
NIOSH REL (United States, 10/2013).  
Absorbed through skin.  
STEL: 325 mg/m³ 15 minutes.  
STEL: 250 ppm 15 minutes.  
TWA: 260 mg/m³ 10 hours.  
TWA: 200 ppm 10 hours.  
OSHA PEL (United States, 2/2013).  
TWA: 260 mg/m³ 8 hours.  
TWA: 200 ppm 8 hours.  
Absorbed through skin.  
STEL: 325 mg/m³ 15 minutes.  
STEL: 250 ppm 15 minutes.  
TWA: 260 mg/m³ 8 hours.  
TWA: 200 ppm 8 hours.  

### Appropriate engineering controls
Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
Section 8. Exposure controls/personal protection

Environmental exposure controls: 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.

Individual protection measures

Hygiene measures: 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 clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: 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, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection: Chemical-resistant, impervious 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.

Body protection: 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory 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.

Section 9. Physical and chemical properties

Appearance

Physical state: Liquid. [Aerosol.]
Color: Clear. Colorless.
Odor: Characteristic.
Odor threshold: Not available.
pH: Not available.
Melting point: Not available.
Boiling point: Not available.
Flash point: Closed cup: -5.5°C (22.1°F)
Evaporation rate: >1 (butyl acetate = 1)
Flammability (solid, gas): Not available.
Lower and upper explosive (flammable) limits: Lower: 1.1% Upper: 6.7%
Vapor pressure: 7.4 kPa (55.49 mm Hg) [room temperature]
Vapor density: Not available.
Relative density: Not available.
Solubility: Not available.
**Section 9. Physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partition coefficient: n-octanol/water</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.</td>
</tr>
<tr>
<td>Aerosol product</td>
<td>Spray</td>
</tr>
<tr>
<td>Heat of combustion</td>
<td>30.26 kJ/g</td>
</tr>
</tbody>
</table>

**Section 10. Stability and reactivity**

**Reactivity**: No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability**: The product is stable.

**Possibility of hazardous reactions**: Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid**: Avoid all possible sources of ignition (spark or flame).

**Incompatible materials**: Reactive or incompatible with the following materials: alkalis Alkaline earth metal salt. Aluminum. zinc.

**Hazardous decomposition products**: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**Section 11. Toxicological information**

**Information on toxicological effects**

**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>Ethyl alcohol</td>
<td>LC50 Inhalation Vapor</td>
<td>Rat</td>
<td>124700 mg/m³</td>
<td>4 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>7 g/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>12800 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>145000 ppm</td>
<td>1 hours</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>64000 ppm</td>
<td>4 hours</td>
</tr>
<tr>
<td>methanol</td>
<td>LC50 Inhalation Gas.</td>
<td>Rat</td>
<td>15800 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LC50 Inhalation Gas.</td>
<td>Rabbit</td>
<td>5600 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

**Irritation/Corrosion**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>Eyes - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>0.066666667 minutes 100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 microliters 500 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Eyes - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>400 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 20 milligrams</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Skin - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 milligrams</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 100 milligrams</td>
<td>-</td>
</tr>
</tbody>
</table>

*Date of issue/Date of revision*: 5/20/2015.  
*Date of previous issue*: 5/5/2015.  
*Version*: 2  
*7/13*
Section 11. Toxicological information

<table>
<thead>
<tr>
<th>Substance</th>
<th>Eyes - Moderate irritant</th>
<th>Eyes - Severe irritant</th>
<th>Skin - Mild irritant</th>
<th>Eyes - Moderate irritant</th>
<th>Skin - Moderate irritant</th>
</tr>
</thead>
<tbody>
<tr>
<td>methanol</td>
<td>Rabbit</td>
<td>Rabbit</td>
<td>Rabbit</td>
<td>Rabbit</td>
<td>Rabbit</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>10 milligrams</td>
<td>100 milligrams</td>
<td>500 milligrams</td>
<td>24 hours 100 milligrams</td>
<td>40 milligrams</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Sensitization**
Not available.

**Mutagenicity**
Not available.

**Carcinogenicity**
Not available.

**Classification**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>-</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>methanol</td>
<td>None.</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Reproductive toxicity**
Not available.

**Teratogenicity**
Not available.

**Specific target organ toxicity (single exposure)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Narcotic effects</td>
</tr>
</tbody>
</table>

**Specific target organ toxicity (repeated exposure)**
Not available.

**Aspiration hazard**
Not available.

**Information on the likely routes of exposure**
Not available.

**Potential acute health effects**

**Eye contact**
Causes serious eye irritation.

**Inhalation**
Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

**Skin contact**
May cause skin irritation.

**Ingestion**
Irritating to mouth, throat and stomach.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact**
Adverse symptoms may include the following:
- pain or irritation
- watering
- redness
Section 11. Toxicological information

Inhalation: Adverse symptoms may include the following:
- respiratory tract irritation
- coughing

Skin contact: Adverse symptoms may include the following:
- irritation
- redness
- dryness
- cracking

Ingestion: Adverse symptoms may include the following:
- Irritating to mouth, throat and stomach.
- nausea or vomiting
- central nervous system depression

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure
- Potential immediate effects: Not available.
- Potential delayed effects: Not available.

Long term exposure
- Potential immediate effects: Not available.
- Potential delayed effects: Not available.

Potential chronic health effects
Not available.

General: No known significant effects or critical hazards.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>39113.6 mg/kg</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>Acute EC50 17.921 mg/l Marine water</td>
<td>Algae - Ulva pertusa</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td>Acute EC50 2000 µg/l Fresh water</td>
<td>Daphnia - Daphnia magna</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 25500 µg/l Marine water</td>
<td>Crustaceans - Artemia</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 42000 µg/l Fresh water</td>
<td>franciscana - Larvae</td>
<td>4 days</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 4.995 mg/l Marine water</td>
<td>Fish - Oncorhynchus mykiss</td>
<td>4 days</td>
</tr>
<tr>
<td></td>
<td>Chronic NOEC 0.375 µL/L Fresh water</td>
<td>Algae - Ulva pertusa</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fish - Gambusia holbrooki -</td>
<td>12 weeks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Larvae</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Crustaceans - Crangon crangon</td>
<td>48 hours</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>Acute LC50 1400000 to 1950000 µg/l Marine water</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acute LC50 1400000 µg/l</td>
<td></td>
<td></td>
</tr>
<tr>
<td>methanol</td>
<td>Acute EC50 16.912 mg/l Marine water</td>
<td>Fish - Gambusia affinis</td>
<td>96 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Algae - Ulva pertusa</td>
<td>96 hours</td>
</tr>
</tbody>
</table>
Section 12. Ecological information

Persistence and degradability
Not available.

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>-0.35</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>0.05</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>Methanol</td>
<td>-0.77</td>
<td>&lt;10</td>
<td>low</td>
</tr>
</tbody>
</table>

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : 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. Dispose 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. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

United States - RCRA Toxic hazardous waste "U" List

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS #</th>
<th>Status</th>
<th>Reference number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methanol (I); Methyl alcohol (I)</td>
<td>67-56-1</td>
<td>Listed</td>
<td>U154</td>
</tr>
</tbody>
</table>

Section 14. Transport information

<table>
<thead>
<tr>
<th>UN number</th>
<th>DOT Classification</th>
<th>TDG Classification</th>
<th>Mexico Classification</th>
<th>ADR/RID</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
<td>UN1950</td>
<td>1950</td>
<td>ID8000</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UN proper shipping name</th>
<th>Consumer commodity</th>
<th>Consumer commodity ORM-D</th>
<th>Consumer commodity ORM-D</th>
<th>Aerosols, flammable</th>
<th>AEROSOLS IN LIMITED QUANTITIES OF CLASS 2</th>
<th>Consumer commodity ID8000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport hazard class(es)</td>
<td>ORM-D</td>
<td>ORM-D</td>
<td>ORM-D</td>
<td>2</td>
<td>2.1</td>
<td>9</td>
</tr>
</tbody>
</table>
Section 14. Transport information

| Packing group | - | - | - | II | II | - |
| Additional information | - | - | - | Tunnel code (D) | - | - |

Special precautions for user: Transport within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.

Section 15. Regulatory information

U.S. Federal regulations:
- TSCA 8(a) PAIR: heptane
- TSCA 8(a) CDR Exempt/Partial exemption: Not determined
- Clean Air Act (CAA) 112 regulated flammable substances: 1,1-difluoroethane

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs):
- Listed

Clean Air Act Section 602 Class I Substances:
- Not listed

Clean Air Act Section 602 Class II Substances:
- Not listed

DEA List I Chemicals (Precursor Chemicals):
- Not listed

DEA List II Chemicals (Essential Chemicals):
- Not listed

SARA 302/304
- Composition/information on ingredients: No products were found.

SARA 304 RQ:
- Not applicable.

SARA 311/312
- Classification:
  - Fire hazard
  - Immediate (acute) health hazard

Composition/information on ingredients:

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl alcohol</td>
<td>10 - 20, 7 - 15, 1 - 3</td>
<td>Yes, Yes, Yes</td>
<td>No, No, No</td>
<td>No, No, No</td>
<td>Yes, Yes, Yes</td>
<td>No, No, No</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methanol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SARA 313

Date of issue/Date of revision: 5/20/2015
Date of previous issue: 5/5/2015
Version: 2
11/13
Section 15. Regulatory information

<table>
<thead>
<tr>
<th>Form R - Reporting requirements</th>
<th>Product name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Isopropyl alcohol</td>
<td>67-63-0</td>
<td>7 - 15</td>
</tr>
<tr>
<td></td>
<td>methanol</td>
<td>67-56-1</td>
<td>1 - 3</td>
</tr>
<tr>
<td>Supplier notification</td>
<td>Isopropyl alcohol</td>
<td>67-63-0</td>
<td>7 - 15</td>
</tr>
<tr>
<td></td>
<td>methanol</td>
<td>67-56-1</td>
<td>1 - 3</td>
</tr>
</tbody>
</table>

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

**Massachusetts**: The following components are listed: HEPTANE (N-HEPTANE); DIFLUOROETHANE; ETHYL ALCOHOL; ISOPROPYL ALCOHOL; METHANOL

**New York**: The following components are listed: Methanol

**New Jersey**: The following components are listed: n-HEPTANE; HEPTANE; 1,1-DIFLUOROETHANE; ETHANE, 1,1-DIFLUORO-; ETHYL ALCOHOL; ALCOHOL; ISOPROPYL ALCOHOL; 2-PROPANOL; METHYL ALCOHOL; METHANOL

**Pennsylvania**: The following components are listed: HEPTANE; DENATURED ALCOHOL; 2-PROPANOL; METHANOL

**California Prop. 65**

**WARNING**: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Cancer</th>
<th>Reproductive</th>
<th>No significant risk level</th>
<th>Maximum acceptable dosage level</th>
</tr>
</thead>
<tbody>
<tr>
<td>methanol</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
<td>23000 µg/day (ingestion) 47000 µg/day (inhalation)</td>
</tr>
</tbody>
</table>

International regulations

**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

**Montreal Protocol (Annexes A, B, C, E)**

Not listed.

**Stockholm Convention on Persistent Organic Pollutants**

Not listed.

**Rotterdam Convention on Prior Inform Consent (PIC)**

Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**

Not listed.

International lists

**National inventory**

**Australia**: All components are listed or exempted.

**Canada**: All components are listed or exempted.

**China**: All components are listed or exempted.

**Europe**: All components are listed or exempted.

**Japan**: All components are listed or exempted.

**Malaysia**: Not determined.

**New Zealand**: All components are listed or exempted.

**Philippines**: All components are listed or exempted.

**Republic of Korea**: All components are listed or exempted.
Section 15. Regulatory information

Taiwan : All components are listed or exempted.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability/Reactivity</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

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| Date of issue/Date of revision | : 5/20/2015. |
| Date of previous issue | : 5/5/2015.  |
| Version                | : 2          |
| Key to abbreviations   | : ATE = Acute Toxicity Estimate
|                       | BCF = Bioconcentration Factor
|                       | GHS = Globally Harmonized System of Classification and Labelling of Chemicals
|                       | IATA = International Air Transport Association
|                       | IBC = Intermediate Bulk Container
|                       | IMDG = International Maritime Dangerous Goods
|                       | LogPow = logarithm of the octanol/water partition coefficient
|                       | UN = United Nations

References : Not available.

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.

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