

# Material Safety Data Sheet



CircuitWorks® Water Soluble Flux Dispensing Pen

## 1. Product and company identification

|                                    |  |
|------------------------------------|--|
| <b>Product name</b>                | : CircuitWorks® Water Soluble Flux Dispensing Pen  |
| <b>Supplier</b>                    | : Chemtronics<br>8125 Cobb Center Drive<br>Kennesaw, GA 30152<br><br>Tel. 770-424-4888 or toll free 800-645-5244 |
| <b>Synonym</b>                     | : Fluxing agents soldering   |
| <b>Trade name</b>                  | : CircuitWorks® Water Soluble Flux Dispensing Pen  |
| <b>Manufacturer</b>                | : Chemtronics<br>8125 Cobb Center Drive<br>Kennesaw, GA 30152<br><br>Tel. 770-424-4888 or toll free 800-645-5244 |
| <b>Code</b>                        | : CW8300   |
| <b>MSDS #</b>                      | : 8300   |
| <b>Validation date</b>             | : 10/18/2013.  |
| <b>Print date</b>                  | : 10/18/2013.  |
| <b><u>In case of emergency</u></b> | : Chemtrec - 1-800-424-9300 or collect 703-527-3887<br>24/7  |
| <b>Product type</b>                | : Liquid.  |

## 2. Hazards identification

### Emergency overview

|                               |   |
|-------------------------------|---|
| <b>Physical state</b>         | : Liquid.   |
| <b>Color</b>                  | : Amber. Clear. [Light]   |
| <b>Odor</b>                   | : Alcohol-like. [Slight]  |
| <b>Signal word</b>            | : WARNING!  |
| <b>Hazard statements</b>      | : FLAMMABLE LIQUID AND VAPOR. HARMFUL IF INHALED. CAUSES EYE AND SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. POSSIBLE CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER, BASED ON ANIMAL DATA.   |
| <b>Precautionary measures</b> | : Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Do not eat, drink or smoke when using this product. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks and flame. Keep container tightly closed. Use personal protective equipment as required. Wash thoroughly after handling. |
| <b>OSHA/HCS status</b>        | : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).   |

### Potential acute health effects

|                   |   |
|-------------------|---|
| <b>Inhalation</b> | : Toxic by inhalation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. |
| <b>Ingestion</b>  | : Harmful if swallowed.   |
| <b>Skin</b>       | : Severely irritating to the skin.  |
| <b>Eyes</b>       | : Severely irritating to eyes. Risk of serious damage to eyes.  |

### Potential chronic health effects

|                        |   |
|------------------------|---|
| <b>Chronic effects</b> | : Contains material that can cause target organ damage. |
|------------------------|---|

## 2. Hazards identification

- Carcinogenicity** : Contains material which may cause cancer, based on animal data. Risk of cancer depends on duration and level of exposure.
- 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.
- Target organs** : Contains material which causes damage to the following organs: eye, lens or cornea. Contains material which may cause damage to the following organs: blood, kidneys, liver, spleen, upper respiratory tract, skin, central nervous system (CNS).

### Over-exposure signs/symptoms

- Inhalation** : Adverse symptoms may include the following:  
dizziness/vertigo  
drowsiness/fatigue  
headache  
respiratory tract irritation
- Ingestion** : Adverse symptoms may include the following:  
Irritating to mouth, throat and stomach.  
nausea or vomiting
- Skin** : Adverse symptoms may include the following:  
irritation  
redness
- Eyes** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

## 3. Composition/information on ingredients

| Name              | CAS number | %       |
|-------------------|------------|---------|
| Isopropyl alcohol | 67-63-0    | 60 - 95 |
| glycerol          | 56-81-5    | 10 - 30 |
| lactic acid       | 50-21-5    | 1 - 10  |
| diethanolamine    | 111-42-2   | 1 - 10  |
| glycollic acid    | 79-14-1    | 1 - 2   |

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.

## 4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

## 4. First aid measures

- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- 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.

## 5. Fire-fighting measures

- Flammability of the product** : Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.
- Extinguishing media**
- Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- Special exposure hazards** : 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.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
halogenated compounds
- 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.

## 6. Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- 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 for 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.

## 6. Accidental release measures

### 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 container for disposal according to local regulations (see Section 13). 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.

## 7. Handling and storage

### Handling

- : Put on appropriate personal protective equipment (see Section 8). 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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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 non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

### Storage

- : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

| Ingredient        | Exposure limits   |
|-------------------|---|
| Isopropyl alcohol | <p><b>ACGIH TLV (United States, 3/2012).</b><br/>           STEL: 400 ppm 15 minutes.<br/>           TWA: 200 ppm 8 hours.</p> <p><b>NIOSH REL (United States, 1/2013).</b><br/>           STEL: 1225 mg/m<sup>3</sup> 15 minutes.<br/>           STEL: 500 ppm 15 minutes.<br/>           TWA: 980 mg/m<sup>3</sup> 10 hours.<br/>           TWA: 400 ppm 10 hours.</p> <p><b>OSHA PEL (United States, 6/2010).</b><br/>           TWA: 980 mg/m<sup>3</sup> 8 hours.<br/>           TWA: 400 ppm 8 hours.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b><br/>           STEL: 1225 mg/m<sup>3</sup> 15 minutes.<br/>           STEL: 500 ppm 15 minutes.<br/>           TWA: 980 mg/m<sup>3</sup> 8 hours.<br/>           TWA: 400 ppm 8 hours.</p> |
| glycerol          | <p><b>ACGIH TLV (United States, 3/2012).</b><br/>           TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Mist</p> <p><b>OSHA PEL (United States, 6/2010).</b><br/>           TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction</p>  |

## 8. Exposure controls/personal protection

diethanolamine

TWA: 15 mg/m<sup>3</sup> 8 hours. Form: Total dust  
**OSHA PEL 1989 (United States, 3/1989).**  
 TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction  
 TWA: 10 mg/m<sup>3</sup> 8 hours. Form: Total dust  
**OSHA PEL 1989 (United States, 3/1989).**  
 TWA: 3 ppm 8 hours.  
 TWA: 15 mg/m<sup>3</sup> 8 hours.  
**NIOSH REL (United States, 1/2013).**  
 TWA: 3 ppm 10 hours.  
 TWA: 15 mg/m<sup>3</sup> 10 hours.  
**ACGIH TLV (United States, 3/2012). Absorbed through skin.**  
 TWA: 1 mg/m<sup>3</sup> 8 hours. Form: Inhalable fraction and vapor

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- Engineering measures** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- 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.
- Personal protection**
- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : 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.
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin** : 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.
- 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.

## 9. Physical and chemical properties

|                                   |  |
|-----------------------------------|--|
| <b>Physical state</b>             | : Liquid.                                |
| <b>Flash point</b>                | : Closed cup: 18°C (64.4°F) [Tagliabue.] |
| <b>Auto-ignition temperature</b>  | : 370°C (698°F)                          |
| <b>Flammable limits</b>           | : Lower: 0.9%<br>Upper: 12%              |
| <b>Color</b>                      | : Amber. Clear. [Light]                  |
| <b>Odor</b>                       | : Alcohol-like. [Slight]                 |
| <b>pH</b>                         | : 6.7                                    |
| <b>Boiling/condensation point</b> | : 82°C (179.6°F)                         |
| <b>Relative density</b>           | : 0.9                                    |
| <b>Vapor pressure</b>             | : 3.3 kPa (25 mm Hg) [room temperature]  |
| <b>Vapor density</b>              | : >1 [Air = 1]                           |
| <b>Volatility</b>                 | : > 90% (v/v)                            |
| <b>Evaporation rate</b>           | : >1 (butyl acetate = 1)                 |

## 10. Stability and reactivity

|   |  |
|---|--|
| <b>Chemical stability</b>                 | : The product is stable.   |
| <b>Conditions to avoid</b>                | : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas. |
| <b>Incompatible materials</b>             | : Reactive or incompatible with the following materials:<br>oxidizing materials  |
| <b>Hazardous decomposition products</b>   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced.   |
| <b>Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.  |

## 11. Toxicological information

### Acute toxicity

| Product/ingredient name | Result                          | Species | Dose                   | Exposure |
|-------------------------|---------------------------------|---------|------------------------|----------|
| Isopropyl alcohol       | LD50 Dermal                     | Rabbit  | 12800 mg/kg            | -        |
|                         | LD50 Oral                       | Rat     | 5000 mg/kg             | -        |
| glycerol                | LD50 Oral                       | Rat     | 12600 mg/kg            | -        |
| lactic acid             | LD50 Oral                       | Rat     | 3543 mg/kg             | -        |
| glycollic acid          | LC50 Inhalation Dusts and mists | Rat     | 3600 mg/m <sup>3</sup> | 4 hours  |
|                         | LD50 Oral                       | Rat     | 1938 mg/kg             | -        |

**Conclusion/Summary** : Not available.

### Chronic toxicity

**Conclusion/Summary** : Not available.

### Irritation/Corrosion

| Product/ingredient name | Result                   | Species | Score | Exposure                | Observation |
|-------------------------|--------------------------|---------|-------|-------------------------|-------------|
| Isopropyl alcohol       | Eyes - Moderate irritant | Rabbit  | -     | 24 hours 100 milligrams | -           |
|                         | Eyes - Moderate irritant | Rabbit  | -     | 10 milligrams           | -           |
|                         | Eyes - Severe irritant   | Rabbit  | -     | 100 milligrams          | -           |
|                         | Skin - Mild irritant     | Rabbit  | -     | 500 milligrams          | -           |
| glycerol                | Eyes - Mild irritant     | Rabbit  | -     | 24 hours 500            | -           |

## 11. Toxicological information

|                |                          |        |   |                         |   |
|----------------|--------------------------|--------|---|-------------------------|---|
| lactic acid    | Skin - Mild irritant     | Rabbit | - | milligrams              | - |
|                | Eyes - Severe irritant   | Rabbit | - | 24 hours 500 milligrams | - |
|                | Skin - Moderate irritant | Rabbit | - | 750 Micrograms          | - |
| diethanolamine | Skin - Severe irritant   | Rabbit | - | 24 hours 100 milligrams | - |
|                | Skin - Severe irritant   | Rabbit | - | 24 hours 5 milligrams   | - |
|                | Eyes - Severe irritant   | Rabbit | - | 88 Percent              | - |
|                | Eyes - Severe irritant   | Rabbit | - | 24 hours 750 Micrograms | - |
| glycollic acid | Eyes - Severe irritant   | Rabbit | - | 5500 milligrams         | - |
|                | Skin - Mild irritant     | Rabbit | - | 24 hours 500 milligrams | - |
|                | Skin - Mild irritant     | Rabbit | - | 50 milligrams           | - |
|                | Eyes - Severe irritant   | Rabbit | - | 2 milligrams            | - |
|                | Skin - Severe irritant   | Rabbit | - | 0.5 Milliliters         | - |

**Conclusion/Summary** : Not available.

### Sensitizer

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Classification

| Product/ingredient name | OSHA | IARC | NTP | ACGIH | EPA | NIOSH |
|-------------------------|------|------|-----|-------|-----|-------|
| Isopropyl alcohol       | -    | 3    | -   | A4    | -   | None. |
| glycerol                | -    | -    | -   | -     | -   | None. |
| diethanolamine          | -    | 2B   | -   | A3    | -   | -     |

### Mutagenicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

## 12. Ecological information

**Ecotoxicity** : No known significant effects or critical hazards.

### Aquatic ecotoxicity

| Product/ingredient name | Result  | Species  | Exposure |
|-------------------------|---|--|----------|
| Isopropyl alcohol       | Acute LC50 1400000 to 1950000 µg/l Marine water | Crustaceans - Crangon crangon  | 48 hours |
| diethanolamine          | Acute LC50 1400000 µg/l                         | Fish - Gambusia affinis  | 96 hours |
|                         | Acute EC50 12 mg/l Fresh water                  | Algae - Pseudokirchneriella subcapitata                                | 96 hours |
|                         | Acute LC50 28800 to 34600 µg/l Fresh water      | Crustaceans - Ceriodaphnia dubia - Neonate                             | 48 hours |
|                         | Acute LC50 2150 µg/l Fresh water                | Daphnia - Daphnia pulex  | 48 hours |
|                         | Acute LC50 100 mg/l Fresh water                 | Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) | 96 hours |



## 12. Ecological information

**Conclusion/Summary** : Not available.

**Persistence/degradability**

**Conclusion/Summary** : Not available.

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




## 13. Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.



Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14. Transport information

| Regulatory information       | UN number | Proper shipping name                         | Classes | PG* | Label   | Additional information  |
|------------------------------|-----------|--|---------|-----|---|---|
| <b>DOT Classification</b>    | -         | Consumer commodity ORM-D                     | ORM-D   | -   |   | <b>Reportable quantity</b><br>1818.2 lbs / 825.45 kg<br>[242.29 gal / 917.17 L]<br>Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements. |
| <b>TDG Classification</b>    | -         | Consumer commodity ORM-D                     | ORM-D   | -   |  | -   |
| <b>Mexico Classification</b> | -         | Consumer commodity ORM-D                     | ORM-D   | -   |  | -   |
| <b>ADR/RID Class</b>         | UN1993    | FLAMMABLE LIQUID, N.O.S. (Isopropyl alcohol) | 3       | II  |  | <b>Special provisions</b><br>640 (C)<br><b>Tunnel code</b><br>(D/E)   |
|                              |           |  |         |     |   |   |



## 14. Transport information

|                       |        |   |   |    |   |                  |
|-----------------------|--------|---|---|----|---|------------------|
| <b>IMDG Class</b>     | UN1993 | FLAMMABLE<br>LIQUIDS, N.O.S.<br>(Isopropyl alcohol) | 3 | II |  | Limited quantity |
| <b>IATA-DGR Class</b> | UN1993 | FLAMMABLE<br>LIQUIDS, N.O.S.<br>(Isopropyl alcohol) | 3 | II |  | Limited quantity |

PG\* : Packing group

## 15. Regulatory information

**HCS Classification** : Flammable liquid  
Toxic material  
Irritating material  
Carcinogen  
Target organ effects

**U.S. Federal regulations** : **TSCA 8(a) CDR Exempt/Partial exemption**: Not determined  
**Commerce control list precursor**: dimethylammonium chloride  
**United States inventory (TSCA 8b)**: All components are listed or exempted.

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

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

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

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

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

### 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  
Delayed (chronic) health hazard

#### Composition/information on ingredients

| Name              | %       | Fire hazard | Sudden release of pressure | Reactive | Immediate (acute) health hazard | Delayed (chronic) health hazard |
|-------------------|---------|-------------|----------------------------|----------|---------------------------------|---------------------------------|
| Isopropyl alcohol | 60 - 95 | Yes.        | No.                        | No.      | Yes.                            | Yes.                            |
| glycerol          | 10 - 30 | No.         | No.                        | No.      | No.                             | Yes.                            |
| lactic acid       | 1 - 10  | No.         | No.                        | No.      | Yes.                            | No.                             |
| diethanolamine    | 1 - 10  | No.         | No.                        | No.      | Yes.                            | Yes.                            |
| glycollic acid    | 1 - 2   | No.         | No.                        | No.      | Yes.                            | No.                             |

### SARA 313

## 15. Regulatory information

|                                 | Product name                        | CAS number          | %                 |
|---------------------------------|-------------------------------------|---------------------|-------------------|
| Form R - Reporting requirements | Isopropyl alcohol<br>diethanolamine | 67-63-0<br>111-42-2 | 60 - 95<br>1 - 10 |
| Supplier notification           | Isopropyl alcohol<br>diethanolamine | 67-63-0<br>111-42-2 | 60 - 95<br>1 - 10 |

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

### State regulations

- Massachusetts** : The following components are listed: ISOPROPYL ALCOHOL; GLYCERINE MIST; DIETHANOLAMINE
- New York** : The following components are listed: Diethanolamine
- New Jersey** : The following components are listed: ISOPROPYL ALCOHOL; 2-PROPANOL; GLYCERIN; 1,2,3-PROPANETRIOL; DIETHANOLAMINE; ETHANOL, 2,2'-IMINOBI-
- Pennsylvania** : The following components are listed: 2-PROPANOL; 1,2,3-PROPANETRIOL; ETHANOL, 2,2'-IMINOBI-

### California Prop. 65

**WARNING:** This product contains a chemical known to the State of California to cause cancer.

| Ingredient name | Cancer | Reproductive | No significant risk level | Maximum acceptable dosage level |
|-----------------|--------|--------------|---------------------------|---------------------------------|
| diethanolamine  | Yes.   | No.          | No.                       | No.                             |

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

### International regulations

- International lists** :
- Australia inventory (AICS):** All components are listed or exempted.
  - China inventory (IECSC):** All components are listed or exempted.
  - Japan inventory:** All components are listed or exempted.
  - Korea inventory:** All components are listed or exempted.
  - Malaysia Inventory (EHS Register):** Not determined.
  - New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted.
  - Philippines inventory (PICCS):** All components are listed or exempted.
  - Taiwan inventory (CSNN):** Not determined.

- Chemical Weapons Convention List Schedule I Chemicals** : Not listed

- Chemical Weapons Convention List Schedule II Chemicals** : Not listed

- Chemical Weapons Convention List Schedule III Chemicals** : Not listed

## 16. Other information

- Label requirements** : FLAMMABLE LIQUID AND VAPOR. HARMFUL IF INHALED. CAUSES EYE AND SKIN IRRITATION. MAY BE HARMFUL IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE. POSSIBLE CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER, BASED ON ANIMAL DATA.

- Hazardous Material Information System (U.S.A.)** :

Health

2

## 16. Other information

|                  |   |
|------------------|---|
| Flammability     | 3 |
| Physical hazards | 0 |
|                  |   |

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 MSDSs 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.) :



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Date of printing : 10/18/2013.  
Date of issue : 10/18/2013.  
Date of previous issue : No previous validation.  
Version : 1  
Prepared by : Not available.

☑ Indicates information that has changed from previously issued version.

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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