

# SAFETY DATA SHEET



## BG Gasoline Direct Injection Cleaner Part One

### 1. Product and company identification

|   |  |
|---|--|
| <b>Manufacturer</b>   | : BG Products Inc.<br>701 S. Wichita Street<br>Wichita, KS, 67213, USA<br>www.bgprod.com |
| <b><u>Relevant identified uses of the substance or mixture and uses advised against</u></b> |  |
| <b>MSDS #</b>   | : 271  |
| <b>Validation date</b>  | : 8/12/2014.   |
| <b>Responsible name</b>   | : Kolin Anglin, Environmental Coordinator<br>316-265-2686<br>msds@bgprod.com             |
| <b><u>In case of emergency</u></b>  | : (800) 424-9300 (CHEMTREC)  |

### 2. Hazards identification

|   |   |
|---|---|
| <b>OSHA/HCS status</b>                            | : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).   |
| <b>Classification of the substance or mixture</b> | : FLAMMABLE LIQUIDS - Category 4<br>SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A<br>Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 87.1%              |
| <b><u>GHS label elements</u></b>                  |   |
| <b>Hazard pictograms</b>                          | :    |
| <b>Signal word</b>                                | : Warning   |
| <b>Hazard statements</b>                          | : Combustible liquid.<br>Causes serious eye irritation.   |
| <b><u>Precautionary statements</u></b>            |   |
| <b>Prevention</b>                                 | : Wear protective gloves. Wear eye or face protection. Keep away from flames and hot surfaces. - No smoking. Wash hands thoroughly after handling.                                    |
| <b>Response</b>                                   | : 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. |
| <b>Storage</b>                                    | : Store in a well-ventilated place. Keep cool.  |
| <b>Disposal</b>                                   | : Dispose of contents and container in accordance with all local, regional, national and international regulations.   |
| <b>Hazards not otherwise classified</b>           | : None known.   |

### 3. Composition/information on ingredients

|  |                   |
|--|-------------------|
| <b>Substance/mixture</b>                   | : Mixture         |
| <b>Other means of identification</b>       | : Not available.  |
| <b><u>CAS number/other identifiers</u></b> |                   |
| <b>CAS number</b>                          | : Not applicable. |
| <b>Product code</b>                        | : 271             |

### 3. Composition/information on ingredients

| Ingredient name                 | %         | CAS number |
|---------------------------------|-----------|------------|
| (2-methoxymethylethoxy)propanol | 15 - 40   | 34590-94-8 |
| tetrahydro-2-furylmethanol      | 5 - 10    | 97-99-4    |
| 3-morpholinopropylamine         | 1 - 5     | 123-00-2   |
| 2-ethylhexanoic acid            | 0.5 - 1.5 | 149-57-5   |

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

**There are no 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.**

Occupational exposure limits, if available, are listed in Section 8.

### 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** : No known significant effects or critical hazards.
- Ingestion** : Irritating to mouth, throat and stomach.

##### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

## 4. First aid measures

### 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)

## 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.
- Specific hazards arising from the chemical** : Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides
- 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.

## 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. 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.

## 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

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. 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 only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.

- 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 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

### Control parameters

#### Occupational exposure limits

| Ingredient name                 | Exposure limits   |
|---------------------------------|---|
| (2-methoxymethylethoxy)propanol | <p><b>ACGIH TLV (United States, 3/2012).</b><br/> <b>Absorbed through skin.</b><br/>                     TWA: 100 ppm 8 hours.<br/>                     TWA: 606 mg/m<sup>3</sup> 8 hours.<br/>                     STEL: 150 ppm 15 minutes.<br/>                     STEL: 909 mg/m<sup>3</sup> 15 minutes.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b><br/> <b>Absorbed through skin.</b><br/>                     TWA: 100 ppm 8 hours.<br/>                     TWA: 600 mg/m<sup>3</sup> 8 hours.<br/>                     STEL: 150 ppm 15 minutes.<br/>                     STEL: 900 mg/m<sup>3</sup> 15 minutes.</p> <p><b>NIOSH REL (United States, 1/2013).</b><br/> <b>Absorbed through skin.</b><br/>                     TWA: 100 ppm 10 hours.<br/>                     TWA: 600 mg/m<sup>3</sup> 10 hours.<br/>                     STEL: 150 ppm 15 minutes.</p> |

## 8. Exposure controls/personal protection

|   |  |
|---|--|
| <p>Tetrahydrofurfuryl alcohol</p> <p>2-ethylhexanoic acid</p> | <p>STEL: 900 mg/m<sup>3</sup> 15 minutes.<br/> <b>OSHA PEL (United States, 6/2010).</b><br/> <b>Absorbed through skin.</b><br/>                     TWA: 100 ppm 8 hours.<br/>                     TWA: 600 mg/m<sup>3</sup> 8 hours.<br/> <b>AIHA WEEL (United States, 10/2011).</b><br/>                     TWA: 0.5 ppm 8 hours.<br/> <b>ACGIH TLV (United States, 3/2012).</b><br/>                     TWA: 5 mg/m<sup>3</sup> 8 hours. Form: Inhalable fraction and vapor</p> |
|---|--|

- Appropriate engineering controls** : 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.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.
- 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.
- 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.
- 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. 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.
- 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.

## 9. Physical and chemical properties

- Physical state** : Liquid.
- Flash point** : Closed cup: 77°C (170.6°F) [Pensky-Martens.]
- Auto-ignition temperature** : Not available.
- Flammable limits** : Not available.
- Color** : Amber.
- Odor** : Characteristic.
- pH** : 10.3
- Boiling/condensation point** : 100°C (212°F)
- Melting/freezing point** : Not available.
- Specific gravity** : 0.9929
- Vapor pressure** : Not available.

## 9. Physical and chemical properties

|                         |   |
|-------------------------|---|
| <b>Vapor density</b>    | : Not available.  |
| <b>Odor threshold</b>   | : Not available.  |
| <b>Evaporation rate</b> | : Not available.  |
| <b>Solubility</b>       | : Very slightly soluble in the following materials: cold water and hot water. |
| <b>Pour point</b>       | : -11°C (12.2°F)  |
| <b>Density</b>          | : 8.286 (lbs/gal)   |
| <b>VOC content</b>      | : 10 % (w/w)  |

## 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients.  |
| <b>Chemical stability</b>                 | : The product is stable.  |
| <b>Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.   |
| <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. |
| <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.  |

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name    | Result    | Species | Dose       | Exposure |
|----------------------------|-----------|---------|------------|----------|
| Tetrahydrofurfuryl alcohol | LD50 Oral | Rat     | 1600 mg/kg | -        |
| 3-morpholinopropylamine    | LD50 Oral | Rat     | 3560 mg/kg | -        |
| 2-ethylhexanoic acid       | LD50 Oral | Rat     | 1600 mg/kg | -        |

#### Irritation/Corrosion

| Product/ingredient name          | Result                   | Species | Score | Exposure                | Observation |
|----------------------------------|--------------------------|---------|-------|-------------------------|-------------|
| (2-methoxymethylethoxy) propanol | Eyes - Mild irritant     | Human   | -     | 8 milligrams            | -           |
|                                  | Eyes - Mild irritant     | Rabbit  | -     | 24 hours 500 milligrams | -           |
|                                  | Skin - Mild irritant     | Rabbit  | -     | 500 milligrams          | -           |
| Tetrahydrofurfuryl alcohol       | Eyes - Moderate irritant | Rabbit  | -     | 24 hours 20 milligrams  | -           |
| 3-morpholinopropylamine          | Eyes - Severe irritant   | Rabbit  | -     | -                       | -           |
| 2-ethylhexanoic acid             | Skin - Severe irritant   | Rabbit  | -     | -                       | -           |
|                                  | Eyes - Severe irritant   | Rabbit  | -     | 20 milligrams           | -           |
|                                  | Skin - Mild irritant     | Rabbit  | -     | 450 milligrams          | -           |

#### Sensitization

Not available.

#### Mutagenicity

Not available.

#### Carcinogenicity

Not available.

## Section 11. Toxicological information

### Reproductive toxicity

Not available.

### Teratogenicity

Not available.

### Specific target organ toxicity (single exposure)

Not available.

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

**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

**Inhalation** : No specific data.

**Skin contact** : No specific data.

**Ingestion** : No specific data.

### 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

## Section 11. Toxicological information

**Route**

Oral

**ATE value**

8797.9 mg/kg

## 12. Ecological information

**Toxicity**

Not available.

**Persistence and degradability**

Not available.

**Bioaccumulative potential**

| Product/ingredient name          | LogP <sub>ow</sub> | BCF | Potential |
|----------------------------------|--------------------|-----|-----------|
| (2-methoxymethylethoxy) propanol | 0.0043             | -   | low       |
| 2-ethylhexanoic acid             | 2.7                | -   | low       |

**Mobility in soil**

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

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

## 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. 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

|                                   | DOT Classification | IMDG           | IATA           |
|-----------------------------------|--------------------|----------------|----------------|
| <b>UN number</b>                  | Not regulated.     | Not regulated. | Not regulated. |
| <b>UN proper shipping name</b>    | -                  | -              | -              |
| <b>Transport hazard class(es)</b> | -                  | -              | -              |
| <b>Packing group</b>              | -                  | -              | -              |

## 14. Transport information

|                               |     |     |     |
|-------------------------------|-----|-----|-----|
| <b>Environmental hazards</b>  | No. | No. | No. |
| <b>Additional information</b> | -   |     |     |

**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.

## 15. Regulatory information

**U.S. Federal regulations** : **TSCA 8(a) PAIR:** (2-methoxymethylethoxy)propanol  
**TSCA 8(a) CDR Exempt/Partial exemption:** Not determined  
**TSCA 12(b) one-time export:** (2-methoxymethylethoxy)propanol  
**United States inventory (TSCA 8b):** All components are listed or exempted.  
**Clean Water Act (CWA) 311:** propylene oxide

### SARA 302/304

#### Composition/information on ingredients

| Name            | EHS  | SARA 302 TPQ |           | SARA 304 RQ |           |
|-----------------|------|--------------|-----------|-------------|-----------|
|                 |      | (lbs)        | (gallons) | (lbs)       | (gallons) |
| propylene oxide | Yes. | 10000        | 1444.3    | 100         | 14.4      |

**SARA 304 RQ** : 1111111111.1 lbs / 504444444.4 kg [134213036.6 gal / 508051610.9 L]

### 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 |
|---------------------------------|-------------|----------------------------|----------|---------------------------------|---------------------------------|
| (2-methoxymethylethoxy)propanol | Yes.        | No.                        | No.      | No.                             | Yes.                            |
| tetrahydro-2-furylmethanol      | Yes.        | No.                        | No.      | Yes.                            | No.                             |
| 3-morpholinopropylamine         | Yes.        | No.                        | No.      | Yes.                            | Yes.                            |
| 2-ethylhexanoic acid            | No.         | No.                        | No.      | Yes.                            | Yes.                            |

### SARA 313

|  | Product name | CAS number |
|--|--------------|------------|
| <b>Form R - Reporting requirements</b> |              |            |
| <b>Supplier notification</b>           |              |            |

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: DIPROPYLENE GLYCOL METHYL ETHER; TETRAHYDROFURFURYL ALCOHOL; N-(3-AMINOPROPYL) MORPHOLINE

## 15. Regulatory information

- New York** : None of the components are listed.
- New Jersey** : The following components are listed: DIPROPYLENE GLYCOL METHYL ETHER; (2-METHOXYMETHYLETHOXY) PROPANOL; AMINOPROPYLMORPHOLINE; 4-MORPHOLINEPROPANAMINE; 2-ETHYLHEXANOIC ACID; HEXANOIC ACID, 2-ETHYL-
- Pennsylvania** : The following components are listed: PROPANOL, (2-METHOXYMETHYLETHOXY)-; 2-FURANMETHANOL, TETRAHYDRO-; 4-MORPHOLINEPROPANAMINE

### California Prop. 65

**WARNING:** This product contains less than 0.1% of a chemical known to the State of California to cause cancer.

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

| Ingredient name      | Cancer | Reproductive | No significant risk level | Maximum acceptable dosage level |
|----------------------|--------|--------------|---------------------------|---------------------------------|
| 2-ethylhexanoic acid | No.    | Yes.         | No.                       | No.                             |
| 1,4-dioxane          | Yes.   | No.          | Yes.                      | No.                             |
| propylene oxide      | Yes.   | No.          | No.                       | No.                             |

- United States inventory (TSCA 8b)** : All components are listed or exempted.

### Canada

- WHMIS (Canada)** : Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).  
Class E: Corrosive material

### Canadian lists

- Canadian NPRI** : None of the components are listed.
- CEPA Toxic substances** : None of the components are listed.
- Canada inventory** : Not determined.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

### International regulations

- International lists** :
- Australia inventory (AICS):** All components are listed or exempted.
  - China inventory (IECSC):** All components are listed or exempted.
  - Japan inventory:** Not determined.
  - 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):** Not determined.
  - Taiwan inventory (CSNN):** Not determined.

## 16. Other information

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

|                  |   |
|------------------|---|
| Health           | 2 |
| Flammability     | 2 |
| Physical hazards | 0 |
|                  |   |

## 16. Other information

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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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](#)

**Date of printing** : 8/12/2014.

**Date of issue/Date of revision** : 8/12/2014.

**Date of previous issue** : 10/14/2013.

**Version** : 2.1

### [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  
 MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 UN = United Nations

**References** : Not available.

☑ Indicates information that has changed from previously issued version.

### [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.