## SAFETY DATA SHEET

### 1. Identification

<table>
<thead>
<tr>
<th>Material name: ULTRAGUARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material: 059LS-55</td>
</tr>
</tbody>
</table>

**Recommended use and restriction on use**

- **Recommended use:** Coatings
- **Restrictions on use:** Not known.

**Manufacturer/Importer/Supplier/Distributor Information**

Euclid Admixture Canada Inc.
2835 Grand-Allee
Saint Hubert QC J4T 2R4
CA

- **Contact person:** EH&S Department
- **Telephone:** (450)465-2233
- **Emergency telephone number:** 1-800-424-9300 (US); 1-613-996-6666 (Canada)

### 2. Hazard(s) identification

#### Hazard Classification

**Health Hazards**

- Toxic to reproduction Category 1B

**Unknown toxicity - Health**

- Acute toxicity, oral 1.46 %
- Acute toxicity, dermal 2.6 %
- Acute toxicity, inhalation, vapor 26.7 %
- Acute toxicity, inhalation, dust or mist 26.92 %

**Label Elements**

**Hazard Symbol:**

![Hazard Symbol]

**Signal Word:** Danger

**Hazard Statement:** May damage fertility or the unborn child.
Precautionary Statements

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Response: IF exposed or concerned: Get medical advice/attention.

Storage: Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>CAS number</th>
<th>Content in percent (%)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isobutyric acid polymer</td>
<td>25265-77-4</td>
<td>1 - &lt;5%</td>
</tr>
<tr>
<td>Glycol ether solvent</td>
<td>112-34-5</td>
<td>0.1 - &lt;1%</td>
</tr>
<tr>
<td>2-Butoxyethanol (Glycol ether)</td>
<td>111-76-2</td>
<td>0.1 - &lt;1%</td>
</tr>
<tr>
<td>Dibutyl phthalate</td>
<td>84-74-2</td>
<td>0.1 - &lt;0.3%</td>
</tr>
</tbody>
</table>

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Description of necessary first-aid measures

Inhalation: Move to fresh air.

Skin Contact: Wash skin thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.

Eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Ingestion: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

Personal Protection for First-aid Responders: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

Hazards: No data available.
Indication of immediate medical attention and special treatment needed

Treatment: Get medical attention if symptoms occur.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: No data available.

Accidental release measures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer. Environmental manager must be informed of all major spillages.

7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation): Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.
Safe handling advice: Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required.

Contact avoidance measures: No data available.

Hygiene measures: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Observe good industrial hygiene practices.

Storage

Safe storage conditions: Store locked up.

Safe packaging materials: No data available.

### 8. Exposure controls/personal protection

#### Control Parameters

##### Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycol ether solvent - Inhalable fraction and vapor.</td>
<td>TWA</td>
<td>10 ppm</td>
<td>US. ACGIH Threshold Limit Values (03 2013)</td>
</tr>
<tr>
<td>2-Butoxyethanol (Glycol ether)</td>
<td>TWA</td>
<td>20 ppm</td>
<td>US. ACGIH Threshold Limit Values (2011)</td>
</tr>
<tr>
<td></td>
<td>PEL</td>
<td>50 ppm 240 mg/m3</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
<tr>
<td>Dibutyl phthalate</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td>US. ACGIH Threshold Limit Values (2011)</td>
</tr>
<tr>
<td></td>
<td>PEL</td>
<td>5 mg/m3</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</td>
</tr>
</tbody>
</table>

<table>
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<th>Chemical name</th>
<th>Type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycol ether solvent - Inhalable fraction and vapor.</td>
<td>TWA</td>
<td>10 ppm</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)</td>
</tr>
<tr>
<td>Chemical name</td>
<td>Type</td>
<td>Exposure Limit Values</td>
<td>Source</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>------</td>
<td>-----------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Glycol ether solvent - Inhalable fraction and vapor.</td>
<td>TWA</td>
<td>10 ppm</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)</td>
</tr>
<tr>
<td>2-Butoxyethanol (Glycol ether)</td>
<td>TWA</td>
<td>20 ppm</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>2-Butoxyethanol (Glycol ether)</td>
<td>TWA</td>
<td>20 ppm</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>2-Butoxyethanol (Glycol ether)</td>
<td>TWA</td>
<td>20 ppm 97 mg/m3</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)</td>
</tr>
<tr>
<td>Propylene glycol - Aerosol.</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Propylene glycol - Vapor and aerosol.</td>
<td>TWA</td>
<td>50 ppm 155 mg/m3</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)</td>
</tr>
<tr>
<td>Dibutyl phthalate</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>Dibutyl phthalate</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Dibutyl phthalate</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)</td>
</tr>
<tr>
<td>Glycerine - Mist.</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>Glycerine - Respirable mist.</td>
<td>TWA</td>
<td>3 mg/m3</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>Glycerine - Mist.</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)</td>
</tr>
<tr>
<td>Methyl methacrylate</td>
<td>TWA</td>
<td>50 ppm</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>100 ppm</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>Methyl methacrylate</td>
<td>TWA</td>
<td>50 ppm</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>100 ppm</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Methyl methacrylate</td>
<td>TWA</td>
<td>50 ppm 205 mg/m3</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)</td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>STEL</td>
<td>35 ppm</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>25 ppm</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>TWA</td>
<td>25 ppm</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>35 ppm</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Substance</td>
<td>Type</td>
<td>Control Limit</td>
<td>Note</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------</td>
<td>---------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Ethylene glycol - Vapor.</td>
<td>CEILING</td>
<td>50 ppm</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>Ethylene glycol - Aerosol.</td>
<td>CEILING</td>
<td>100 mg/m3</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>Ethylene glycol - Particulate.</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>Ethylene glycol - Aerosol.</td>
<td>STEL</td>
<td>20 mg/m3</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>Ethylene glycol - Aerosol.</td>
<td>CEV</td>
<td>100 mg/m3</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Ethylene glycol - Vapor and mist</td>
<td>CEILING</td>
<td>50 ppm</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>TWA</td>
<td>0.3 ppm</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td></td>
<td>CEILING</td>
<td>1 ppm</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>STEL</td>
<td>1 ppm</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td></td>
<td>CEV</td>
<td>1.5 ppm</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>CEILING</td>
<td>2 ppm</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 mg/m3</td>
<td></td>
</tr>
<tr>
<td>n-Butanol</td>
<td>CEILING</td>
<td>30 ppm</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>15 ppm</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>n-Butanol</td>
<td>TWA</td>
<td>20 ppm</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>n-Butanol</td>
<td>CEILING</td>
<td>50 ppm</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>152 mg/m3</td>
<td></td>
</tr>
<tr>
<td>p-Dioxane</td>
<td>TWA</td>
<td>20 ppm</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td>p-Dioxane</td>
<td>TWA</td>
<td>20 ppm</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>p-Dioxane</td>
<td>TWA</td>
<td>20 ppm</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>TWA</td>
<td>0.1 ppm</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>1 ppm</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)</td>
</tr>
</tbody>
</table>
### Ethylene oxide

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Limit Value</th>
<th>Source</th>
<th><strong>STEL</strong></th>
<th><strong>TWA</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>STEL</td>
<td>10 ppm</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)</td>
<td>18 mg/m³</td>
<td>1.8 mg/m³</td>
</tr>
<tr>
<td>TWA</td>
<td>1 ppm</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)</td>
<td>1.8 mg/m³</td>
<td></td>
</tr>
<tr>
<td>STEL</td>
<td>1 ppm</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)</td>
<td>1.8 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

### Biological Limit Values

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (Glycol ether) (Butoxyacetic acid (BAA), with hydrolysis: Sampling time: End of shift.)</td>
<td>200 mg/g (Creatinine in urine)</td>
<td>ACGIH BEI (03 2013)</td>
</tr>
</tbody>
</table>

### Appropriate Engineering Controls

- **Observe good industrial hygiene practices.**
- **Observe occupational exposure limits** and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

### Individual protection measures, such as personal protective equipment

- **General information:** Use personal protective equipment as required.
- **Eye/face protection:** Wear goggles/face shield.
- **Skin Protection**
  - **Hand Protection:** Use suitable protective gloves if risk of skin contact.
  - **Other:** No data available.
- **Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
- **Hygiene measures:** Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Observe good industrial hygiene practices.

### 9. Physical and chemical properties

#### Appearance

- **Physical state:** liquid
- **Form:** liquid
- **Color:** White
- **Odor:** Mild
- **Odor threshold:** No data available.
- **pH:** No data available.
- **Melting point/freezing point:** No data available.
- **Initial boiling point and boiling range:** No data available.
- **Flash Point:** No data available.
- **Evaporation rate:** Slower than Ether
- **Flammability (solid, gas):** No
- **Upper/lower limit on flammability or explosive limits**
Flammability limit - upper (%): No data available.
Flammability limit - lower (%): No data available.
Explosive limit - upper (%): No data available.
Explosive limit - lower (%): No data available.
Vapor pressure: No data available.
Vapor density: Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density: 1.03
Solubility(ies)
  Solubility in water: Soluble
  Solubility (other): No data available.
Partition coefficient (n-octanol/water): No data available.
Auto-ignition temperature: No data available.
Decomposition temperature: No data available.
Viscosity: No data available.

10. Stability and reactivity

Reactivity: No data available.
Chemical Stability: Material is stable under normal conditions.
Possibility of hazardous reactions: No data available.
Conditions to avoid: Avoid heat or contamination.
Hazardous Decomposition Products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure
  Inhalation: In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
  Skin Contact: Causes mild skin irritation.
  Eye contact: Eye contact is possible and should be avoided.
  Ingestion: May be ingested by accident. Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics
  Inhalation: No data available.
  Skin Contact: No data available.
  Eye contact: No data available.
Ingestion: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: Not classified for acute toxicity based on available data.

Specified substance(s):
Isobutyric acid polymer LD 50 (Rat): > 3,200 mg/kg
Glycol ether solvent LD 50 (Rat): 3,306 mg/kg
2-Butoxyethanol (Glycol ether) LD 50 (Rat): 1,746 mg/kg
Dibutyl phthalate LD 50 (Rat): 6,279 mg/kg

Dermal
Product: Not classified for acute toxicity based on available data.

Specified substance(s):
Glycol ether solvent LD 50 (Rabbit): 2,764 mg/kg
2-Butoxyethanol (Glycol ether) LD 50 (Rabbit): 1,060 mg/kg
Dibutyl phthalate LD 50 (Rabbit): 4,200 mg/kg

Inhalation
Product: ATEmix: 352.46 mg/l

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

Specified substance(s):
Isobutyric acid polymer in vivo (Rabbit): Category 3
Glycol ether solvent in vivo (Rabbit): Slightly irritating
2-Butoxyethanol (Glycol ether) in vivo (Rabbit): Irritating
Dibutyl phthalate in vivo (Rabbit): Not irritant

**Serious Eye Damage/Eye Irritation**
Product: No data available.
Specified substance(s):
- Isobutyric acid polymer Rabbit, 24 hrs: Slightly irritating
- Glycol ether solvent Rabbit, 24 - 72 hrs: Highly irritating
- 2-Butoxyethanol (Glycol ether) Rabbit, 24 - 72 hrs: Irritating
- Dibutyl phthalate Rabbit, 24 - 72 hrs: Not irritating

**Respiratory or Skin Sensitization**
Product: No data available.

**Carcinogenicity**
Product: No data available.
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogenic components identified
US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogenic components identified
No carcinogenic components identified

**Germ Cell Mutagenicity**
In vitro Product: No data available.

In vivo Product: No data available.

**Reproductive toxicity**
Product: May damage fertility or the unborn child.

**Specific Target Organ Toxicity - Single Exposure**
Product: No data available.
Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard
Product: No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s):
- Glycol ether solvent
  LC 50 (Bluegill (Lepomis macrochirus), 96 h): 1,300 mg/l Mortality
- 2-Butoxyethanol (Glycol ether)
  LC 50 (Oncorhynchus mykiss, 96 h): 1,464 mg/l
- Dibutyl phthalate
  LC 50 (Fathead minnow (Pimephales promelas), 96 h): 0.92 mg/l Mortality

Aquatic Invertebrates
Product: No data available.

Specified substance(s):
- 2-Butoxyethanol (Glycol ether)
  EC 50 (Daphnia magna, 48 h): 1,800 mg/l
- Dibutyl phthalate
  LD 50 (Brine shrimp (Artemia sp.), 24 h): 8 mg/l Mortality
  EC 50 (Water flea (Daphnia magna), 24 h): > 11 - 13 mg/l Mortality
  EC 50 (Water flea (Daphnia magna), 24 h): > 12 - 14 mg/l Mortality
  LC 50 (Crayfish (Orconectes nais), 24 h): > 10 mg/l Mortality
  LC 50 (Polychaete or Opheliid worm (Armandia maculata), 96 h): > 2.9 mg/l Mortality

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s):
- 2-Butoxyethanol (Glycol ether)
  NOAEL (Danio rerio, 21 d): > 100 mg/l Experimental result, Key study
- Dibutyl phthalate
  LOAEL (Oncorhynchus mykiss, 99 d): 0.19 mg/l Experimental result, Key
study
NOAEL (Oncorhynchus mykiss, 99 d): 0.19 mg/l Experimental result, Key study
LOAEL (Oncorhynchus mykiss, 99 d): 0.4 mg/l Experimental result, Key study
NOAEL (Oncorhynchus mykiss, 99 d): 0.1 mg/l Experimental result, Not specified
NOAEL (Oncorhynchus mykiss, 99 d): 0.1 mg/l Experimental result, Key study

Aquatic Invertebrates
Product: No data available.

Specified substance(s):
2-Butoxyethanol (Glycol ether)
NOEC (Daphnia magna, 21 d): 100 mg/l

Toxicity to Aquatic Plants
Product: No data available.

Specified substance(s):
Dibutyl phthalate
EC 50 (Green algae (Scenedesmus acutus), 96 h): 0.21 mg/l Mortality

Persistence and Degradability

Biodegradation
Product: No data available.

BOD/COD Ratio
Product: No data available.

Bioaccumulative potential
Bioconcentration Factor (BCF)
Product: No data available.

Specified substance(s):
Dibutyl phthalate
Green algae (Selenastrum capricornutum), Bioconcentration Factor (BCF): 8,826 (Static)

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.

Specified substance(s):
Glycol ether solvent
Log Kow: 0.56
2-Butoxyethanol (Glycol ether)
Log Kow: 0.83
Dibutyl phthalate
Log Kow: 4.9

Mobility in soil: No data available.
Other adverse effects: No data available.

13. Disposal considerations

Disposal methods: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG: Not Regulated

CFR / DOT: Not Regulated

IMDG: Not Regulated

15. Regulatory information

US Federal Regulations
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) None present or none present in regulated quantities.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E) None present or none present in regulated quantities.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>OSHA hazard(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>Acute toxicity&lt;br&gt;Skin irritation&lt;br&gt;Skin sensitization&lt;br&gt;Flammability&lt;br&gt;Respiratory tract irritation&lt;br&gt;Respiratory sensitization&lt;br&gt;Cancer&lt;br&gt;Eye irritation</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>Skin sensitization&lt;br&gt;Reproductive toxicity&lt;br&gt;Mutagenicity&lt;br&gt;Eye irritation&lt;br&gt;Acute toxicity&lt;br&gt;Respiratory tract irritation&lt;br&gt;Cancer&lt;br&gt;Skin irritation&lt;br&gt;Flammability&lt;br&gt;Central nervous system</td>
</tr>
</tbody>
</table>

CERCLA Hazardous Substance List (40 CFR 302.4):

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reportable quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dibutyl phthalate</td>
<td>10 lbs.</td>
</tr>
<tr>
<td>Methyl methacrylate</td>
<td>1000 lbs.</td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>1000 lbs.</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>5000 lbs.</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>100 lbs.</td>
</tr>
<tr>
<td>n-Butanol</td>
<td>5000 lbs.</td>
</tr>
<tr>
<td>p-Dioxane</td>
<td>100 lbs.</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>10 lbs.</td>
</tr>
</tbody>
</table>

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
- Delayed (Chronic) Health Hazard
- Reproductive toxicity

SARA 302 Extremely Hazardous Substance

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reportable quantity</th>
<th>Threshold Planning Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>100 lbs.</td>
<td>500 lbs.</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>10 lbs.</td>
<td>1000 lbs.</td>
</tr>
</tbody>
</table>
SARA 304 Emergency Release Notification

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reportable quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycol ether solvent</td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol (Glycol</td>
<td></td>
</tr>
<tr>
<td>ether)</td>
<td></td>
</tr>
<tr>
<td>Dibutyl phthalate</td>
<td>10 lbs.</td>
</tr>
<tr>
<td>Methyl methacrylate</td>
<td>1000 lbs.</td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>1000 lbs.</td>
</tr>
<tr>
<td>Ethylene glycol</td>
<td>5000 lbs.</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>100 lbs.</td>
</tr>
<tr>
<td>n-Butanol</td>
<td>5000 lbs.</td>
</tr>
<tr>
<td>p-Dioxane</td>
<td>100 lbs.</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>10 lbs.</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazardous Chemical

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Threshold Planning Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>500lbs</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>500lbs</td>
</tr>
<tr>
<td>Isobutyric acid polymer</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Glycol ether solvent</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>2-Butoxyethanol (Glycol</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>ether)</td>
<td></td>
</tr>
<tr>
<td>Dibutyl phthalate</td>
<td>10000 lbs</td>
</tr>
</tbody>
</table>

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reportable quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>lbs</td>
</tr>
<tr>
<td>Ethylene oxide</td>
<td>lbs</td>
</tr>
</tbody>
</table>

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

WARNING
Cancer and Reproductive Harm - www.P65Warnings.ca.gov

US. New Jersey Worker and Community Right-to-Know Act

<table>
<thead>
<tr>
<th>Chemical Identity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol (Glycol</td>
</tr>
<tr>
<td>ether)</td>
</tr>
</tbody>
</table>

US. Massachusetts RTK - Substance List

<table>
<thead>
<tr>
<th>Chemical Identity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
</tr>
<tr>
<td>p-Dioxane</td>
</tr>
<tr>
<td>Ethylene oxide</td>
</tr>
</tbody>
</table>
US. Pennsylvania RTK - Hazardous Substances
No ingredient regulated by PA Right-to-Know Law present.

US. Rhode Island RTK
No ingredient regulated by RI Right-to-Know Law present.

International regulations

Montreal protocol
Not applicable

Stockholm convention
Not applicable

Rotterdam convention
Not applicable

Kyoto protocol
Not applicable

VOC:
Regulatory VOC (less water and exempt solvent) : 99 g/l
VOC Method 310 : 2.41 %
Inventory Status:

Australia AICS: One or more components in this product are not listed on or exempt from the Inventory.

EINECS, ELINCS or NLP: One or more components in this product are not listed on or exempt from the Inventory.

Japan (ENCS) List: One or more components in this product are not listed on or exempt from the Inventory.

China Inv. Existing Chemical Substances: One or more components in this product are not listed on or exempt from the Inventory.

Korea Existing Chemicals Inv. (KECI): One or more components in this product are not listed on or exempt from the Inventory.

Canada NDSL Inventory: One or more components in this product are not listed on or exempt from the Inventory.

Philippines PICCS: One or more components in this product are not listed on or exempt from the Inventory.

New Zealand Inventory of Chemicals: One or more components in this product are not listed on or exempt from the Inventory.

Japan ISHL Listing: One or more components in this product are not listed on or exempt from the Inventory.

Japan Pharmacopoeia Listing: One or more components in this product are not listed on or exempt from the Inventory.

Mexico INSQ: One or more components in this product are not listed on or exempt from the Inventory.

Ontario Inventory: One or more components in this product are not listed on or exempt from the Inventory.

Taiwan Chemical Substance Inventory: One or more components in this product are not listed on or exempt from the Inventory.

Canada DSL Inventory List: All components in this product are listed on or exempt from the Inventory.

US TSCA Inventory: All components in this product are listed on or exempt from the Inventory.
16. Other information, including date of preparation or last revision

Revision Date: 07/11/2019

Version #: 2.1

Further Information: No data available.

Disclaimer: For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.