This is a kit that contains the following components:

EUCO 452/352 LV PART A

EUCO 452 LV/MV PART B
SAFETY DATA SHEET

1. Identification

Product identifier: EUCO 452/352 LV PART A
Product Code: 002L 01

Recommended use and restriction on use
  Recommended use: Sealant
  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
  Skin Corrosion/Irritation Category 2
  Serious Eye Damage/Eye Irritation Category 2A
  Skin sensitizer Category 1

Unknown toxicity - Health
  Acute toxicity, oral 8.27 %
  Acute toxicity, dermal 8.27 %
  Acute toxicity, inhalation, vapor 99.77 %
  Acute toxicity, inhalation, dust or mist 99.77 %

Environmental Hazards
  Acute hazards to the aquatic environment Category 2
  Chronic hazards to the aquatic environment Category 2

Unknown toxicity - Environment
  Acute hazards to the aquatic environment 8.61 %
  Chronic hazards to the aquatic environment 8.34 %
Label Elements

Hazard Symbol:

Signal Word: Warning

Hazard Statement: Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention: Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water/… If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see on this label). Wash contaminated clothing before reuse. Collect spillage.

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>Bisphenol A Polyglycidyl Ether Resin</td>
<td>25068-38-6</td>
<td>50 - &lt;100%</td>
</tr>
<tr>
<td>Epichlorohydrin polymer</td>
<td>25085-99-8</td>
<td>0.1 - &lt;1%</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: Get medical attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical 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: Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

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

000000004224
**Personal precautions, protective equipment and emergency procedures:**

See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

**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:**

Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

### 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. Wash hands thoroughly after handling. Avoid contact with eyes. Avoid contact with skin. Avoid contact with eyes, skin, and clothing.

**Contact avoidance measures:**

No data available.

**Hygiene measures:**

Observe good industrial hygiene practices. Avoid contact with eyes. Wash contaminated clothing before reuse. Avoid contact with skin. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace.

#### Storage

**Safe storage conditions:**

Store away from incompatible materials. Store in original tightly closed container.

**Safe packaging materials:**

No data available.

### 8. Exposure controls/personal protection

#### Control Parameters

**Occupational Exposure Limits**

None of the components have assigned exposure limits.

**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: Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection
Hand Protection: Use suitable protective gloves if risk of skin contact.

Other: Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: Observe good industrial hygiene practices. Avoid contact with eyes. Wash contaminated clothing before reuse. Avoid contact with skin. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace.

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: > 260 °C > 500 °F
Flash Point: > 93 °C > 200 °F (Setaflash Closed Cup)
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 (%): 1.40 %(V)
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: 1.16
Solubility(ies)
  Solubility in water: Insoluble in water
  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.
Incompatible Materials: No data available.
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: May be harmful in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
  Eye contact: Causes serious eye irritation.
  Ingestion: May be harmful if swallowed.

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):
Bisphenol A Polyglycidyl Ether Resin
LD 50 (Rat): > 2,000 mg/kg

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

Specified substance(s):
Bisphenol A Polyglycidyl Ether Resin
LD 50 (Rat): > 2,000 mg/kg

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

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

Specified substance(s):
Bisphenol A, Polyglycidyl Ether Resin
Irritating.
in vivo (Rabbit): Slightly irritating

Serious Eye Damage/Eye Irritation
Product: No data available.
Specified substance(s):
Bisphenol A Polyglycidyl Ether Resin
Strongly irritating.
Rabbit, 24 hrs: Slightly 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: No data available.

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):
- Bisphenol A Polyglycidyl Ether Resin
  - LC 50 (Oncorhynchus mykiss, 96 h): 2 mg/l Experimental result, Key study

Aquatic Invertebrates
- Product: No data available.

Specified substance(s):
- Bisphenol A Polyglycidyl Ether Resin
  - EC 50 (Daphnia magna, 48 h): 1.8 mg/l Experimental result, Key study

Chronic hazards to the aquatic environment:

**Fish**
- Product: No data available.
Aquatic Invertebrates

Product: No data available.

Specified substance(s): Bisphenol A Polyglycidyl Ether Resin

NOEC (Daphnia magna, 21 d): 0.3 mg/l Experimental result, Key study

Toxicity to Aquatic Plants

Product: No data available.

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): Bisphenol A Polyglycidyl Ether Resin

Bioconcentration Factor (BCF): 31 Aquatic sediment QSAR, Key study

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s): Bisphenol A Polyglycidyl Ether Resin

Log Kow: 2.64 - 3.78 25 °C Yes Experimental result, Key study

Mobility in soil: No data available.

Other adverse effects: Toxic to aquatic life with long lasting effects.

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
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)
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):
None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate (Acute) Health Hazards
Skin Corrosion or Irritation
Serious eye damage or eye irritation
Respiratory or Skin Sensitization

SARA 302 Extremely Hazardous Substance
None present or none present in regulated quantities.

SARA 304 Emergency Release Notification
None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Threshold Planning Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A Polyglycidyl Ether Resin</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Epichlorohydrin polymer</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)
None present or none present in regulated quantities.
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
No ingredient requiring a warning under CA Prop 65.

US. New Jersey Worker and Community Right-to-Know Act
No ingredient regulated by NJ Right-to-Know Law present.

US. Massachusetts RTK - Substance List
No ingredient regulated by MA Right-to-Know Law present.

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: When appropriately mixed with the other part, product has a VOC less water and exempt solvent of:
0 g/l

Regulatory VOC (less water and exempt solvent) : 0 g/l
VOC Method 310 : 0.00 %
**Inventory Status:**

<table>
<thead>
<tr>
<th>Region/Inventory</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia AICS:</td>
<td>One or more components in this product are not listed on or exempt from the Inventory.</td>
</tr>
<tr>
<td>Canada DSL Inventory List:</td>
<td>All components in this product are listed on or exempt from the Inventory.</td>
</tr>
<tr>
<td>EINECS, ELINCS or NLP:</td>
<td>One or more components in this product are not listed on or exempt from the Inventory.</td>
</tr>
<tr>
<td>Japan (ENCS) List:</td>
<td>One or more components in this product are not listed on or exempt from the Inventory.</td>
</tr>
<tr>
<td>China Inv. Existing Chemical Substances:</td>
<td>One or more components in this product are not listed on or exempt from the Inventory.</td>
</tr>
<tr>
<td>Korea Existing Chemicals Inv. (KECI):</td>
<td>One or more components in this product are not listed on or exempt from the Inventory.</td>
</tr>
<tr>
<td>Canada NDSL Inventory:</td>
<td>One or more components in this product are not listed on or exempt from the Inventory.</td>
</tr>
<tr>
<td>Philippines PICCS:</td>
<td>One or more components in this product are not listed on or exempt from the Inventory.</td>
</tr>
<tr>
<td>US TSCA Inventory:</td>
<td>All components in this product are listed on or exempt from the Inventory.</td>
</tr>
<tr>
<td>New Zealand Inventory of Chemicals:</td>
<td>One or more components in this product are not listed on or exempt from the Inventory.</td>
</tr>
<tr>
<td>Japan ISHL Listing:</td>
<td>One or more components in this product are not listed on or exempt from the Inventory.</td>
</tr>
<tr>
<td>Japan Pharmacopoeia Listing:</td>
<td>One or more components in this product are not listed on or exempt from the Inventory.</td>
</tr>
<tr>
<td>Ontario Inventory:</td>
<td>One or more components in this product are not listed on or exempt from the Inventory.</td>
</tr>
<tr>
<td>Mexico INSQ:</td>
<td>One or more components in this product are not listed on or exempt from the Inventory.</td>
</tr>
<tr>
<td>Taiwan Chemical Substance Inventory:</td>
<td>One or more components in this product are not listed on or exempt from the Inventory.</td>
</tr>
</tbody>
</table>

**16. Other information, including date of preparation or last revision**
Revision Date: 06/13/2019
Version #: 3.0
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.
SAFETY DATA SHEET

1. Identification

Product identifier: EUCO 452 LV/MV PART B
Product Code: 002L 01

Recommended use and restriction on use
   Recommended use: Curative
   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
   Acute toxicity (Oral) Category 4
   Acute toxicity (Inhalation - dust and mist) Category 4
   Skin Corrosion/Irritation Category 1A
   Serious Eye Damage/Eye Irritation Category 1
   Skin sensitizer Category 1
   Toxic to reproduction Category 1B

Unknown toxicity - Health
   Acute toxicity, oral 23.04 %
   Acute toxicity, dermal 61.67 %
   Acute toxicity, inhalation, vapor 100 %
   Acute toxicity, inhalation, dust or mist 85.71 %

Environmental Hazards
   Acute hazards to the aquatic environment Category 2

Unknown toxicity - Environment
   Acute hazards to the aquatic environment 55.48 %
Chronic hazards to the aquatic environment 100 %

Label Elements

Hazard Symbol:

Signal Word: Danger

Hazard Statement: Harmful if swallowed or if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May damage fertility or the unborn child. Toxic to aquatic life.

Precautionary Statements

Prevention: Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid release to the environment.

Response: IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. If skin irritation or rash occurs: Get medical advice/attention. IF SWALLOWED: Call a POISON CENTRE/doctor/... if you feel unwell. Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Specific treatment (see on this label). Wash contaminated clothing before reuse.

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>4-tert-Butylphenol</td>
<td>98-54-4</td>
<td>25 - &lt;50%</td>
</tr>
<tr>
<td>m-Xylenediamine</td>
<td>1477-55-0</td>
<td>10 - &lt;20%</td>
</tr>
<tr>
<td>1,3-Cyclohexanediethanamine</td>
<td>2579-20-6</td>
<td>10 - &lt;20%</td>
</tr>
<tr>
<td>Diethylenetriamine</td>
<td>111-40-0</td>
<td>5 - &lt;10%</td>
</tr>
<tr>
<td>Bisphenol A</td>
<td>80-05-7</td>
<td>5 - &lt;10%</td>
</tr>
<tr>
<td>Tetraethylene pentamine</td>
<td>112-57-2</td>
<td>1 - &lt;5%</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: Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. Move to fresh air. If breathing is difficult, give oxygen.

Skin Contact: Call a physician or poison control center immediately. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

Ingestion: Rinse mouth. Call a physician or poison control center immediately. Never give liquid to an unconscious person. Do not induce vomiting without advice from poison control center.

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: Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Extreme irritation of eyes and mucous membranes, including burning and tearing.

Hazards: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: Symptoms may be delayed.

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: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

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: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

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 taste or swallow. Wash hands thoroughly after handling. Do not get in eyes. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Do not get in eyes, on skin, on clothing. Avoid contact with eyes, skin, and clothing.

Contact avoidance measures: No data available.
Hygiene measures: Observe good industrial hygiene practices. Do not eat, drink or smoke when using the product. Wash hands after handling. Do not get in eyes. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Do not get this material in contact with skin. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.

Storage

Safe storage conditions: Store locked up.

Safe packaging materials: No data available.

8. Exposure controls/personal protection

Control Parameters

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>m-Xylenediamine</td>
<td>Ceiling</td>
<td>0.1 mg/m³</td>
<td>US. ACGIH Threshold Limit Values (2011)</td>
</tr>
<tr>
<td>Diethylenetriamine</td>
<td>TWA</td>
<td>1 ppm</td>
<td>US. ACGIH Threshold Limit Values (2011)</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>
<thead>
<tr>
<th>Chemical name</th>
<th>Type</th>
<th>Exposure Limit Values</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>m-Xylenediamine</td>
<td>CEILING</td>
<td>0.1 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>m-Xylenediamine</td>
<td>CEV</td>
<td>0.1 mg/m³</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>m-Xylenediamine</td>
<td>CEILING</td>
<td>0.1 mg/m³</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)</td>
</tr>
<tr>
<td>Diethylenetriamine</td>
<td>TWA</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>Diethylenetriamine</td>
<td>TWA</td>
<td>1 ppm</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Diethylenetriamine</td>
<td>TWA</td>
<td>1 ppm 4.2 mg/m³</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)</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>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>m-Xylenediamine</td>
<td>CEILING</td>
<td>0.1 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>m-Xylenediamine</td>
<td>CEV</td>
<td>0.1 mg/m³</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>m-Xylenediamine</td>
<td>CEILING</td>
<td>0.1 mg/m³</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)</td>
</tr>
<tr>
<td>Diethylenetriamine</td>
<td>TWA</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>
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</tr>
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</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>Carbon Black - Inhalable</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>Carbon Black - Inhalable</td>
<td>TWA</td>
<td>3 mg/m³</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>TWA</td>
<td>3.5 mg/m³</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)</td>
</tr>
<tr>
<td>Amorphous silica - Total</td>
<td>TWA</td>
<td>4 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>Amorphous silica - Respirable.</td>
<td>TWA</td>
<td>1.5 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>Amorphous silica - Respirable dust.</td>
<td>TWA</td>
<td>6 mg/m³</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)</td>
</tr>
<tr>
<td>- Total</td>
<td>TWA</td>
<td>4 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>- Respirable.</td>
<td>TWA</td>
<td>1.5 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>- Respirable dust.</td>
<td>TWA</td>
<td>6 mg/m³</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)</td>
</tr>
</tbody>
</table>

Exposure guidelines
m-Xylenediamine | US. ACGIH Threshold Limit Values | Can be absorbed through the skin.
Diethylenetriamine | US. ACGIH Threshold Limit Values | Can be absorbed through the skin.

**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:**
Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Eye/face protection:**
Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.

**Skin Protection**

**Hand Protection:**
Use suitable protective gloves if risk of skin contact.

**Other:**
Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**Respiratory Protection:**
In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

**Hygiene measures:**
Observe good industrial hygiene practices. Do not eat, drink or smoke when using the product. Wash hands after handling. Do not get in eyes. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Do not get this material in contact with skin. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.

### 9. Physical and chemical properties

**Appearance**

| Physical state: | liquid |
| Form:           | liquid |
| Color:          | Gray   |
| Odor:           | Mild pungent |
| Odor threshold: | No data available. |
| pH:             | No data available. |
| Melting point/freezing point: | No data available. |
| Initial boiling point and boiling range: | > 260 °C > 500 °F |
| Flash Point:    | > 93 °C > 200 °F (Setaflash Closed Cup) |
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 (%): 1.40 % (V)
  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: 0.99
Solubility(ies)
  Solubility in water: Practically Insoluble
  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.
Incompatible Materials: Avoid contact with acids.
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: May be harmful in contact with skin. Causes severe skin burns. May cause an allergic skin reaction.
  Eye contact: Causes serious eye damage.
  Ingestion: Harmful if swallowed.
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: ATEmix: 1,954.64 mg/kg

Dermal
Product: ATEmix: 2,799.47 mg/kg

Inhalation
Product: ATEmix: 1.17 mg/l

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

Specified substance(s):
- 4-tert-Butylphenol in vivo (Rabbit): Highly irritating
- m-Xylenediamine in vivo (Rat): Corrosive
- 1,3-Cyclohexanedicarbonyl in vivo (Rabbit): Corrosive
- Dibutyl phthalate in vivo (Rabbit): Not irritant

Serious Eye Damage/Eye Irritation
Product: No data available.

Specified substance(s):
- 4-tert-Butylphenol Rabbit, 24 hrs: Category 1
- Dibutyl phthalate Rabbit, 24 - 72 hrs: Not irritating

Respiratory or Skin Sensitization
Product: No data available.

Carcinogenicity
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):
4-tert-Butylphenol  
LC 50 (Fathead minnow (Pimephales promelas), 96 h): 4.71 - 5.62 mg/l Mortality

Diethylenetriamine  
LC 50 (Guppy (Poecilia reticulata), 96 h): 1,014 mg/l Mortality
Bisphenol A
LC 50 (Fathead minnow (Pimephales promelas), 96 h): 3.6 - 5.4 mg/l
Mortality

Dibutyl phthalate
LC 50 (Fathead minnow (Pimephales promelas), 96 h): 0.92 mg/l Mortality

Aquatic Invertebrates
Product: No data available.

Specified substance(s):
Bisphenol A
EC 50 (Water flea (Daphnia magna), 48 h): 9.2 - 11.4 mg/l Intoxication

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):
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.

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):
Bisphenol A Log Kow: 3.32
Tetraethylene pentamine Log Kow: 1.503
Dibutyl phthalate Log Kow: 4.9

Mobility in soil: No data available.
Other adverse effects: Toxic to aquatic organisms.

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:
UN1760, CORROSIVE LIQUID, N.O.S. (1,3-Cyclohexanedimethanamine, Xylene Diamine), 8, PG II

CFR / DOT:
UN1760, Corrosive liquids, n.o.s. (1,3-Cyclohexanedimethanamine, Xylene Diamine), 8, PG II

IMDG:
UN1760, CORROSIVE LIQUID, N.O.S. (1,3-Cyclohexanedimethanamine, Xylene Diamine), 8, PG II

Further Information:
The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

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)
None present or none present in regulated quantities.

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>
</tbody>
</table>

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate (Acute) Health Hazards
Delayed (Chronic) Health Hazard
Acute toxicity (any route or exposure)
Skin Corrosion or Irritation
Serious eye damage or eye irritation
Respiratory or Skin Sensitization
Reproductive toxicity

SARA 302 Extremely Hazardous Substance
None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th>Reportable quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A</td>
<td></td>
</tr>
<tr>
<td>Dibutyl phthalate</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>4-tert-Butylphenol</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>m-Xylenediamine</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>1,3-Cyclohexanediethanamine</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Diethyleneetriamine</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Bisphenol A</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Tetraethylene pentamine</td>
<td>10000 lbs</td>
</tr>
<tr>
<td>Dibutyl phthalate</td>
<td>10000 lbs</td>
</tr>
</tbody>
</table>

SARA 313 (TRI Reporting)

<table>
<thead>
<tr>
<th>Chemical Identity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A</td>
<td></td>
</tr>
</tbody>
</table>

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
None present or none present in regulated quantities.

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

Chemical Identity
m-Xylenediamine
Diethylenetriamine
Bisphenol A
Tetraethylene pentamine

US. Massachusetts RTK - Substance List

Chemical Identity
m-Xylenediamine
Diethylenetriamine
Bisphenol A
Tetraethylene pentamine

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
m-Xylenediamine
Diethylenetriamine
Bisphenol A
Tetraethylene pentamine

US. Rhode Island RTK

Chemical Identity
m-Xylenediamine
Diethylenetriamine

International regulations

Montreal protocol
Not applicable

Stockholm convention
Not applicable

Rotterdam convention
Not applicable

Kyoto protocol
Not applicable

VOC: When appropriately mixed with the other part, product has a VOC less water and exempt solvent of:
0 g/l

Regulatory VOC (less water and exempt solvent) : 0 g/l
VOC Method 310 : 0.00 %
**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.

US TSCA Inventory: All components in this product are listed on or exempt from the Inventory.

Canada DSL Inventory List: 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.

Mexico INSQ: 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.

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16. Other information, including date of preparation or last revision

000000004224
Revision Date: 06/13/2019
Version #: 3.0
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.