This is a kit that contains the following components:
TREMCO EPOXY PRIMER 1:1 PART A 1GL CAN
TREMCO EPOXY PRIMER 1:1 PART B 1GL CAN
SAFETY DATA SHEET

1. Identification

Product identifier: TREMCO EPOXY PRIMER 1:1 PART A 1GL CAN
Product Code: 2358104 504

Recommended use and restriction on use
- Recommended use: Sealant
- Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information
Tremco Canadian Sealants
220 Wicksteed Ave
Toronto ON M4H 1G7
CA

Contact person: EH&S Department
Telephone: 1-800-263-6046
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards
- Serious Eye Damage/Eye Irritation Category 2B
- Skin sensitizer Category 1

Unknown toxicity - Health
- Acute toxicity, oral 42.32 %
- Acute toxicity, dermal 42.62 %
- Acute toxicity, inhalation, vapor 100 %
- Acute toxicity, inhalation, dust or mist 99.69 %

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

Label Elements

Hazard Symbol:

Signal Word: Warning
Hazard Statement:
Causes eye irritation.
May cause an allergic skin reaction.

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

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 this label). Wash contaminated clothing before reuse.

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.

Other hazards which do not result in GHS classification:
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>40 - 70%</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

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

Inhalation: Move to fresh air.

Skin Contact: If skin irritation occurs: Get medical advice/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: 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.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

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.

#### 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.

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

#### Environmental Precautions:
Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

### 7. Handling and storage

#### Precautions for safe handling:
Avoid contact with eyes. Wash hands thoroughly after handling. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

#### Conditions for safe storage, including any incompatibilities:
Store away from incompatible materials. Store in original tightly closed container.

### 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: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.

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. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.

9. Physical and chemical properties

Appearance

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state:</td>
<td>liquid</td>
</tr>
<tr>
<td>Form:</td>
<td>liquid</td>
</tr>
<tr>
<td>Color:</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor:</td>
<td>Slight odor</td>
</tr>
<tr>
<td>Odor threshold:</td>
<td>No data available.</td>
</tr>
<tr>
<td>pH:</td>
<td>No data available.</td>
</tr>
<tr>
<td>Melting point/freezing point:</td>
<td>No data available.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range:</td>
<td>No data available.</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>&gt; 93 °C &gt; 200 °F (Setaflash Closed Cup)</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>Slower than Ether</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>No</td>
</tr>
</tbody>
</table>

Upper/lower limit on flammability or explosive limits

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability limit - upper (%):</td>
<td>No data available.</td>
</tr>
<tr>
<td>Flammability limit - lower (%):</td>
<td>No data available.</td>
</tr>
<tr>
<td>Explosive limit - upper (%):</td>
<td>No data available.</td>
</tr>
<tr>
<td>Explosive limit - lower (%):</td>
<td>No data available.</td>
</tr>
</tbody>
</table>
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: 1.13
Solubility(ies):
  Solubility in water: Miscible with 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.
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
Ingestion: May be ingested by accident. Ingestion may cause irritation and malaise.
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 mild skin irritation. May cause an allergic skin reaction.
Eye contact: Causes eye irritation.

Information on toxicological effects
Acute toxicity (list all possible routes of exposure)
Oral Product: No data available.
Dermal Product: ATEmix: 2,898.4 mg/kg
Inhalation Product: No data available.
Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

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

Specified substance(s):
- Bisphenol A in vivo (Rabbit, 24 hrs): Slightly irritating
- Polyglycidyl Ether Resin

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.

Aquatic Invertebrates
Product: No data available.

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

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.

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

Mobility in Soil: No data available.

Other Adverse Effects: No data available.

13. Disposal considerations
Disposal instructions: 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. 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>Methanol</td>
<td>5000 lbs.</td>
</tr>
</tbody>
</table>

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate (Acute) Health Hazards

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>Methanol</td>
<td>5000 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>Bisphenol A Polyglycidyl Ether Resin</td>
<td>500 lbs</td>
</tr>
</tbody>
</table>

SARA 313 (TRI Reporting)

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.

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

US State Regulations

US. California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

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.

Other Regulations:

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

97 g/l

Inventory Status:

Australia AICS: All components in this product are listed on or exempt from the Inventory.

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

China Inv. Existing Chemical Substances: All components in this product are listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI): All components in this product are 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: 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.

New Zealand Inventory of Chemicals: All components in this product are listed on or exempt from the Inventory.

Japan ISHL Listing: All components in this product are 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.

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

Revision Date: 08/05/2015
Version #: 1.0
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: TREMCO EPOXY PRIMER 1:1 PART B 1GL CAN
Product Code: 2358104 504

Recommended use and restriction on use

Recommended use: Curative
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

Tremco Canadian Sealants
220 Wicksteed Ave
Toronto ON M4H 1G7
CA

Contact person: EH&S Department
Telephone: 1-800-263-6046
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Corrosion/Irritation</td>
<td>1A</td>
</tr>
<tr>
<td>Serious Eye Damage/Eye Irritation</td>
<td>1</td>
</tr>
<tr>
<td>Skin sensitizer</td>
<td>1</td>
</tr>
<tr>
<td>Toxic to reproduction</td>
<td>2</td>
</tr>
<tr>
<td>Specific Target Organ Toxicity - Repeated Exposure</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity, oral</td>
<td>2.4 %</td>
</tr>
<tr>
<td>Acute toxicity, dermal</td>
<td>32.41 %</td>
</tr>
<tr>
<td>Acute toxicity, inhalation, vapor</td>
<td>90.02 %</td>
</tr>
<tr>
<td>Acute toxicity, inhalation, dust or mist</td>
<td>83.5 %</td>
</tr>
</tbody>
</table>

Environmental Hazards

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute hazards to the aquatic environment</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute hazards to the aquatic environment</td>
<td>50.49 %</td>
</tr>
<tr>
<td>Chronic hazards to the aquatic environment</td>
<td>89.5 %</td>
</tr>
</tbody>
</table>

Label Elements

Hazard Symbol:
Signal Word: Danger

Hazard Statement: Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life.

Precautionary Statement

Prevention: Do not breathe dust or mists. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing must 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. Do not eat, drink or smoke when using this product. 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/shower. If skin irritation or rash occurs: Get medical advice/attention. If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Specific treatment (see this label). Wash contaminated clothing before reuse. Collect spillage.

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.

Other hazards which do not result in GHS classification: 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-Nonylphenol</td>
<td>84852-15-3</td>
<td>30 - 60%</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>100-51-6</td>
<td>15 - 40%</td>
</tr>
<tr>
<td>**</td>
<td>**</td>
<td>10 - 30%</td>
</tr>
<tr>
<td>Heavy aromatic naphtha</td>
<td>64742-94-5</td>
<td>7 - 13%</td>
</tr>
<tr>
<td>**</td>
<td>**</td>
<td>3 - 7%</td>
</tr>
</tbody>
</table>
Triethylenetetramine | 112-24-3 | 1 - 5%

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

** Trade secret information:** **A specific chemical identity and/or percentage of composition has been withheld as a trade secret.**

** Trade secret information:** **A specific chemical identity and/or percentage of composition has been withheld as a trade secret.**

### 4. First-aid measures

**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.

**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.

**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.

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.

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.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable 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

Precautions for safe handling: 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. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Store locked up.

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>Heavy aromatic naphtha - Non-aerosol. - as total hydrocarbon vapor</td>
<td>TWA</td>
<td>200 mg/m3</td>
<td>US. ACGIH Threshold Limit Values (03 2014)</td>
</tr>
<tr>
<td>Heavy aromatic naphtha</td>
<td>PEL</td>
<td>100 ppm 400 mg/m3</td>
<td>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)</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>Heavy aromatic naphtha - Non-aerosol. - as total hydrocarbon vapor</td>
<td>TWA</td>
<td>200 mg/m³</td>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)</td>
</tr>
<tr>
<td>Heavy aromatic naphtha - Non-aerosol. - as total hydrocarbon vapor</td>
<td>TWAEV</td>
<td>200 mg/m³</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</td>
</tr>
<tr>
<td>Heavy aromatic naphtha</td>
<td>TWA</td>
<td>400 ppm 1,590 mg/m³</td>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)</td>
</tr>
<tr>
<td>Triethylenetetramine</td>
<td>TWAEV</td>
<td>0.5 ppm 3 mg/m³</td>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)</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:** 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 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:** Do not get in eyes. Observe good industrial hygiene practices. 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: Amber
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: No data available.
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 (%): 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: 1.2

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

Ingestion: May be harmful if swallowed.
Inhalation: In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.

Skin Contact: Causes severe skin burns. May cause an allergic skin reaction.

Eye contact: Causes serious eye damage.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: ATEmix: 3,148.15 mg/kg

Dermal
Product: ATEmix: 6,289.53 mg/kg

Inhalation
Product: No data available.

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: No data available.

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

Specified substance(s):
4-Nonylphenol in vivo (Rabbit, 24 - 72 hrs): Corrosive

Benzyl alcohol in vivo (Rabbit, 1 - 72 hrs): Irritating

Heavy aromatic naphtha in vivo (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: Suspected of damaging 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-Nonylphenol LC 50 (Fathead minnow (Pimephales promelas), 96 h): 0.13825 mg/l Mortality
Benzyl alcohol LC 50 (Fathead minnow (Pimephales promelas), 96 h): 460 mg/l Mortality

Aquatic Invertebrates
Product: No data available.

Specified substance(s):
4-Nonylphenol LC 50 (Amphipod (Leptocheirus plumulosus), 144 h): +/- 0.05 mg/l Mortality
EC 50 (Clam (Mulinia lateralis), 24 h): +/- +/- 0.05 mg/l Mortality
LC 50 (Marsh grass shrimp (Palaemonetes vulgaris), 72 h): > 0.05 - 0.1 mg/l Mortality
LC 50 (Amphipod (Leptocheirus plumulosus), 72 h): > 0.05 - 0.1 mg/l Mortality
LC 50 (American lobster (Homarus americanus), 48 h): > 0.1 - 0.15 mg/l Mortality
Triethylenetetramine LC 50 (Water flea (Daphnia magna), 48 h): 33.9 mg/l Intoxication

Chronic hazards to the aquatic environment:
Fish Product: No data available.

Specified substance(s):
- 4-Nonylphenol: LOAEL (Lepomis macrochirus, 28 d): 0.126 mg/l experimental result
- Heavy aromatic naphtha: NOAEL (Oncorhynchus mykiss, 28 d): 0.098 mg/l QSAR

Aquatic Invertebrates Product: No data available.

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):
- 4-Nonylphenol: Fathead minnow (Pimephales promelas), Bioconcentration Factor (BCF): 498 (Flow through)

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

Specified substance(s):
- Benzyl alcohol: Log Kow: 1.10

Mobility in Soil: No data available.

Other Adverse Effects: Very toxic to aquatic organisms.

13. Disposal considerations

Disposal instructions: 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: 000000018307
UN1760, CORROSIVE LIQUID, N.O.S. (Alkaline Amine), 8, PG III

CFR / DOT:
UN1760, Corrosive liquids, n.o.s. (Alkaline Amine), 8, PG III

IMDG:
UN1760, CORROSIVE LIQUID, N.O.S. (Alkaline Amine, Nonylphenol), 8, PG III, MARINE POLLUTANT

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)

Chemical Identity | Reportable quantity
--- | ---
4-Nonylphenol | De minimis concentration: 1.0% One-Time Export Notification only.

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.

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>4-Nonylphenol</td>
<td>500 lbs</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>500 lbs</td>
</tr>
<tr>
<td>Heavy aromatic naphtha</td>
<td>500 lbs</td>
</tr>
<tr>
<td>Triethylenetetramine</td>
<td>500 lbs</td>
</tr>
</tbody>
</table>

SARA 313 (TRI Reporting)
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.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65
No ingredient regulated by CA Prop 65 present.

US. New Jersey Worker and Community Right-to-Know Act
Chemical Identity
Heavy aromatic naphtha
Triethylenetetramine

US. Massachusetts RTK - Substance List
Chemical Identity
4-Nonylphenol
Benzy alcohol
Heavy aromatic naphtha
Triethylenetetramine

US. Pennsylvania RTK - Hazardous Substances
Chemical Identity
4-Nonylphenol
Benzy alcohol
Heavy aromatic naphtha
Triethylenetetramine

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

Other Regulations:

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

Inventory Status:
Australia AICS: 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.
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.

US TSCA Inventory: All components in this product are 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.

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

Revision Date: 08/05/2015
Version #: 1.0
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.