1. Identification

Product identifier: DEVCON® Flexane 94 Liquid Resin

Other means of identification:
- SKU#: 0321
- Recommended use: Not available.
- Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information:
- Company name: ITW Performance Polymers
- Address: 35 Brownridge Rd, Unit 1, Halton Hills, ON L7G 0C6
- Contact person: Customer Service
- Telephone number: 978-777-1100
- Fax: Not available.
- E-mail: 800-424-9300
- Emergency telephone number: 800-424-9300

2. Hazard identification

Physical hazards: Not classified.

Health hazards:
- Acute toxicity, inhalation: Category 2
- Skin corrosion/irritation: Category 2
- Serious eye damage/eye irritation: Category 2
- Sensitization, respiratory: Category 1
- Sensitization, skin: Category 1
- Specific target organ toxicity following single exposure: Category 3 respiratory tract irritation

Environmental hazards: Not classified.

Label elements:

Signal word: Danger

Hazard statement: Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Fatal if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.

Precautionary statement:

Prevention: Do not breathe vapour. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear eye protection/face protection. Wear protective gloves. Wear respiratory protection.

Response: IF ON SKIN: Wash with plenty of water. 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. Immediately call a POISON CENTRE/doctor. Specific treatment is urgent (see this label). If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards
None known.

Supplemental information
None.

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Mixtures</th>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Polyol</td>
<td>N/A</td>
<td>5124-30-1</td>
<td>63.92</td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td></td>
<td></td>
<td>2.252027</td>
</tr>
</tbody>
</table>

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

4. First-aid measures

Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control centre immediately.

Skin contact
Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

Eye contact
Rinse mouth. Get medical attention if symptoms occur.

Ingestion
Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Coughing. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information
Most important symptoms/effects, acute and delayed

5. Fire-fighting measures

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Water. 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
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Move containers from fire area if you can do so without risk.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe vapours or spray mist. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Do not breathe vapours or spray mist. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>Country</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>US. ACGIH Threshold Limit Values</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Components</td>
<td>Type</td>
<td>Value</td>
</tr>
<tr>
<td>METHYLENE BIS(4-CYCLOHEXYLISOYANATE) (CAS 5124-30-1)</td>
<td>TWA</td>
<td>0.005 ppm</td>
</tr>
<tr>
<td><strong>Canada. Alberta OELs (Occupational Health &amp; Safety Code, Schedule 1, Table 2)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Components</td>
<td>Type</td>
<td>Value</td>
</tr>
<tr>
<td>METHYLENE BIS(4-CYCLOHEXYLISOYANATE) (CAS 5124-30-1)</td>
<td>TWA</td>
<td>0.05 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.005 ppm</td>
</tr>
<tr>
<td><strong>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Components</td>
<td>Type</td>
<td>Value</td>
</tr>
<tr>
<td>METHYLENE BIS(4-CYCLOHEXYLISOYANATE) (CAS 5124-30-1)</td>
<td>Ceiling</td>
<td>0.01 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.005 ppm</td>
</tr>
<tr>
<td><strong>Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Components</td>
<td>Type</td>
<td>Value</td>
</tr>
<tr>
<td>METHYLENE BIS(4-CYCLOHEXYLISOYANATE) (CAS 5124-30-1)</td>
<td>TWA</td>
<td>0.005 ppm</td>
</tr>
<tr>
<td><strong>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Components</td>
<td>Type</td>
<td>Value</td>
</tr>
<tr>
<td>METHYLENE BIS(4-CYCLOHEXYLISOYANATE) (CAS 5124-30-1)</td>
<td>Ceiling</td>
<td>0.02 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.005 ppm</td>
</tr>
<tr>
<td><strong>Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Components</td>
<td>Type</td>
<td>Value</td>
</tr>
<tr>
<td>METHYLENE BIS(4-CYCLOHEXYLISOYANATE) (CAS 5124-30-1)</td>
<td>TWA</td>
<td>0.054 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.005 ppm</td>
</tr>
</tbody>
</table>
Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYLENE BIS(4-CYCLOHEXYLISOCYANATE) (CAS 5124-30-1)</td>
<td>15 minute</td>
<td>0.015 ppm</td>
</tr>
<tr>
<td></td>
<td>8 hour</td>
<td>0.005 ppm</td>
</tr>
</tbody>
</table>

**Biological limit values**
No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**
Good general ventilation 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. General ventilation normally adequate. Provide eyewash station and safety shower.

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

- **Eye/face protection**: Chemical respirator with organic vapour cartridge and full facepiece.
- **Skin protection**: Wear appropriate chemical resistant gloves.
- **Hand protection**: Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
- **Respiratory protection**: Wear appropriate thermal protective clothing, when necessary.
- **Thermal hazards**: Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
- **Respiratory protection**: Chemical respirator with organic vapour cartridge and full facepiece.
- **General hygiene considerations**: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

## 9. Physical and chemical properties

- **Appearance**: Liquid.
- **Physical state**: Liquid.
- **Form**: Liquid.
- **Colour**: Clear.
- **Odour**: Musty.
- **Odour threshold**: Not available.
- **pH**: Not available.
- **Melting point/freezing point**: 25 °C (77 °F) estimated
- **Initial boiling point and boiling range**: Not available.
- **Flash point**: 200.0 °C (392.0 °F) estimated
- **Evaporation rate**: Not available.
- **Flammability (solid, gas)**: Not applicable.
- **Upper/lower flammability or explosive limits**
  - **Flammability limit - lower (%)**: Not available.
  - **Flammability limit - upper (%)**: Not available.
  - **Explosive limit - lower (%)**: Not available.
  - **Explosive limit – upper (%)**: Not available.
- **Vapour pressure**: 0.00002 hPa estimated
- **Vapour density**: Not available.
- **Relative density**: Not available.
- **Solubility(ies)**
  - **Solubility (water)**: Not available.
- **Partition coefficient (n-octanol/water)**: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Not available.
Other information:
- Density: 1.03 g/cm³ estimated
- Explosive properties: Not explosive.
- Flammability class: Combustible IIIB estimated
- Oxidising properties: Not oxidising.
- Specific gravity: 1.03 estimated

10. Stability and reactivity

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability: Material is stable under normal conditions.
Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use.
Conditions to avoid: Contact with incompatible materials.
Incompatible materials: Alcohols. Amines.
Hazardous decomposition products: No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure:
- Inhalation: Fatal if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Skin contact: Causes skin irritation. May cause an allergic skin reaction.
- Eye contact: Causes serious eye irritation.
- Ingestion: Knowledge about health hazard is incomplete.

Symptoms related to the physical, chemical and toxicological characteristics:
- Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Coughing. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects:

Acute toxicity: Fatal if inhaled.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>METHYLENE BIS(4-CYCLOHEXYLISOCYANATE) (CAS 5124-30-1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
<td>&gt; 10000 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>1065 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td></td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td></td>
<td>Causes serious eye irritation.</td>
</tr>
</tbody>
</table>

Respiratory or skin sensitisation:
- Canada - British Columbia OELs: Respiratory or skin sensitiser
- METHYLENE BIS(4-CYCLOHEXYLISOCYANATE) (CAS 5124-30-1) Capable of causing respiratory, dermal or conjunctival sensitization.
- Canada - Quebec OELs: Sensitizer
- METHYLENE BIS(4-CYCLOHEXYLISOCYANATE) (CAS 5124-30-1) Sensitiser.

Respiratory sensitisation: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitisation: May cause an allergic skin reaction.
Germ cell mutagenicity: Due to partial or complete lack of data the classification is not possible.
Carcinogenicity: Due to partial or complete lack of data the classification is not possible.
Reproductive toxicity: Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - single exposure
May cause respiratory irritation.

Specific target organ toxicity - repeated exposure
Due to partial or complete lack of data the classification is not possible.

Aspiration hazard
Due to partial or complete lack of data the classification is not possible.

Chronic effects
Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability
No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

<table>
<thead>
<tr>
<th>Partition coefficient n-octanol / water (log Kow)</th>
<th>METHYLENE BIS(4-CYCLOHEXYLISOCYANATE)</th>
<th>6.11</th>
</tr>
</thead>
</table>

Mobility in soil
No data available.

Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations
Dispose in accordance with all applicable regulations.

Hazardous waste code
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

TDG
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not established.

15. Regulatory information

Canadian regulations
This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act
Not regulated.

Export Control List (CEPA 1999, Schedule 3)
Not listed.

Greenhouse Gases
Not listed.

Precursor Control Regulations
Not regulated.

International regulations

Stockholm Convention
Not applicable.

Rotterdam Convention
Not applicable.
Kyoto Protocol
Not applicable.
Montreal Protocol
Not applicable.
Basel Convention
Not applicable.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances</td>
<td>Yes</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Taiwan Chemical Substance Inventory (TCSI)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A “Yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(s).
A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Issue date: 21-May-2019
Revision date: 22-August-2019
Version No.: 02

Disclaimer
ITW Performance Polymers cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user’s responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.

Revision information
This document has undergone significant changes and should be reviewed in its entirety.
1. Identification

Product identifier: DEVCON® Flexane ® Fast Cure Liquid Curing Agent

SKU#: 0304

Recommended use: Not available.

Manufacturer/Importer/Supplier/Distributor information

Company name: ITW Performance Polymers
Address: 35 Brownridge Rd
Unit 1
Halton Hills, ON L7G 0C6

Contact person: Customer Service
Telephone number: 978-777-1100
Fax: 800-424-9300
Emergency telephone number: Not available.

2. Hazard identification

Physical hazards: Not classified.

Health hazards:
- Acute toxicity, oral: Category 4
- Acute toxicity, dermal: Category 4
- Serious eye damage/eye irritation: Category 2A
- Specific target organ toxicity following repeated exposure: Category 2

Environmental hazards: Not classified.

Label elements

Signal word: Warning

Hazard statement: Harmful if swallowed. Harmful in contact with skin. Causes serious eye irritation. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention: Do not breathe mist/vapours. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye protection/face protection. Wear protective gloves/protective clothing.

Response: IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTRE/doctor if you feel unwell. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Storage: Store away from incompatible materials.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards: None known.

Supplemental information: None.
### 3. Composition/information on ingredients

#### Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethyltoluenediamine</td>
<td></td>
<td>68479-98-1</td>
<td>61</td>
</tr>
<tr>
<td>Hydrophobic Silicon Dioxide, Amorphous</td>
<td></td>
<td>67762-90-7</td>
<td>3.5</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td></td>
<td>13463-67-7</td>
<td>1.8</td>
</tr>
</tbody>
</table>

Other components below reportable levels

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

### 4. First-aid measures

**Inhalation**
Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact**
Wash off with soap and water. Get medical advice/attention if you feel unwell. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.

**Eye contact**
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

**Ingestion**
Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.

**Most important symptoms/effects, acute and delayed**
Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Prolonged exposure may cause chronic effects.

**Indication of immediate medical attention and special treatment needed**
Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

**General information**
If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

### 5. Fire-fighting measures

**Suitable extinguishing media**
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

**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**
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions**
Move containers from fire area if you can do so without risk.

**Specific methods**
Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**
No unusual fire or explosion hazards noted.

### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapours. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**
Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

**Environmental precautions**
Avoid discharge into drains, water courses or onto the ground.
### 7. Handling and storage

**Precautions for safe handling**

Do not breathe mist/vapours. Do not taste or swallow. Avoid contact with eyes, skin, and clothing. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**

Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

### 8. Exposure controls/personal protection

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>Source</th>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>US. ACGIH Threshold Limit Values</td>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>TWA</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Canada. Alberta OELs (Occupational Health &amp; Safety Code, Schedule 1, Table 2)</td>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>TWA</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)</td>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>TWA</td>
<td>3 mg/m³ Respirable fraction. 10 mg/m³ Total dust.</td>
</tr>
<tr>
<td>Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)</td>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>TWA</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)</td>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>TWA</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)</td>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>TWA</td>
<td>10 mg/m³ Total dust.</td>
</tr>
<tr>
<td>Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)</td>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>TWA</td>
<td>10 mg/m³</td>
</tr>
</tbody>
</table>

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Good general ventilation 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. Provide eyewash station.

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

- **Eye/face protection**
  - Chemical respirator with organic vapour cartridge and full facepiece.
- **Skin protection**
  - Hand protection: Wear appropriate chemical resistant gloves.
  - Other: Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
- **Respiratory protection**
  - Chemical respirator with organic vapour cartridge and full facepiece.
- **Thermal hazards**
  - Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations
Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance
- Physical state: Liquid.
- Form: Liquid.
- Colour: Grey

Odour
Ammoniacal.

Odour threshold
Not available.

pH
Not available.

Melting point/freezing point
Not available.

Initial boiling point and boiling range
Not available.

Flash point
156.0 °C (312.8 °F) estimated

Evaporation rate
Not available.

Flammability (solid, gas)
Not applicable.

Upper/lower flammability or explosive limits
- Flammability limit - lower (%)
- Flammability limit - upper (%)
- Explosive limit - lower (%)
- Explosive limit – upper (%)

Vapour pressure
0.00009 hPa estimated

Vapour density
Not available.

Relative density
Not available.

Solubility(ies)
- Solubility (water)
- Partition coefficient (n-octanol/water)

Auto-ignition temperature
Not available.

Decomposition temperature
Not available.

Viscosity
Not available.

Other information
- Density: 1.06 g/cm3 estimated
- Explosive properties: Not explosive.
- Flammability class: Combustible IIB estimated
- Oxidising properties: Not oxidising.
- Specific gravity: 1.06 estimated

10. Stability and reactivity

Reactivity
The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability
Material is stable under normal conditions.

Possibility of hazardous reactions
No dangerous reaction known under conditions of normal use.

Conditions to avoid
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.

Incompatible materials
Strong oxidising agents.

Hazardous decomposition products
No hazardous decomposition products are known.
11. Toxicological information

Information on likely routes of exposure

- Inhalation: No adverse effects due to inhalation are expected.
- Skin contact: Harmful in contact with skin.
- Eye contact: Causes serious eye irritation.
- Ingestion: Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

- Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

- Acute toxicity: Harmful in contact with skin. Harmful if swallowed.
- Skin corrosion/irritation: Prolonged skin contact may cause temporary irritation.
- Serious eye damage/eye irritation: Causes serious eye irritation.

Respiratory or skin sensitisation

- Canada - Alberta OELs: Irritant
  - Titanium dioxide (CAS 13463-67-7): Irritant
- Respiratory sensitisation: Not a respiratory sensitizer.
- Skin sensitisation: This product is not expected to cause skin sensitisation.
- Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

- ACGIH Carcinogens
  - Titanium dioxide (CAS 13463-67-7): A4 Not classifiable as a human carcinogen.
- Canada - Manitoba OELs: carcinogenicity
  - Titanium dioxide (CAS 13463-67-7): Not classifiable as a human carcinogen.
- IARC Monographs. Overall Evaluation of Carcinogenicity
  - Titanium dioxide (CAS 13463-67-7): 2B Possibly carcinogenic to humans.

Reproductive toxicity

- This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure

- Not classified.

Specific target organ toxicity - repeated exposure

- May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

- Not an aspiration hazard.

Chronic effects

- May cause damage to organs through prolonged or repeated exposure.

12. Ecological information

Ecotoxicity

- The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability

- No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential

- No data available.

Mobility in soil

- No data available.

Other adverse effects

- No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions

- Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations

- Dispose in accordance with all applicable regulations.

Hazardous waste code

- The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products

- Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

TDG
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not established.

15. Regulatory information

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Canadian regulations

Controlled Drugs and Substances Act
Not regulated.

Export Control List (CEPA 1999, Schedule 3)
Not listed.

Greenhouse Gases
Not listed.

Precursor Control Regulations
Not regulated.

International regulations

Stockholm Convention
Not applicable.

Rotterdam Convention
Not applicable.

Kyoto Protocol
Not applicable.

Montreal Protocol
Not applicable.

Basel Convention
Not applicable.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
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<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
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<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
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<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
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<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Taiwan Chemical Substance Inventory (TCSI)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*“A “Yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(s).
A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).
ITW Performance Polymers cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.

Disclaimer

Composition / Information on Ingredients: Component Summary