SAFETY DATA SHEET

1. Identification

Product identifier
DEVCON® DFense Blok™ Surface Wetting Agent Resin

Other means of identification
SKU#
5601

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

E-mail

Emergency telephone number
800-424-9300

Supplier
Not available.

2. Hazard identification

Physical hazards
Not classified.

Health hazards

Skin corrosion/irritation
Category 2

Serious eye damage/eye irritation
Category 2A

Sensitization, skin
Category 1

Environmental hazards
Not classified.

Label elements

Signal word
Warning

Hazard statement
Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

Precautionary statement

Prevention
Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear eye protection/face protection. Wear protective gloves.

Response
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. 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 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

Material name: DEVCON® DFense Blok™ Surface Wetting Agent Resin

5601  Version #: 01  Issue date: 29-May-2019
4. First-aid measures

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

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
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
Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Most important symptoms/effects, acute and delayed
Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

Indication of immediate medical attention and special treatment needed
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

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. Avoid breathing 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
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
Avoid breathing mist/vapours. 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 in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

<table>
<thead>
<tr>
<th>Occupational exposure limits</th>
<th>No exposure limits noted for ingredient(s).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological limit values</td>
<td>No biological exposure limits noted for the ingredient(s).</td>
</tr>
<tr>
<td>Appropriate engineering controls</td>
<td>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 and safety shower.</td>
</tr>
</tbody>
</table>

Individual protection measures, such as personal protective equipment

- **Eye/face protection**: Face shield is recommended. Wear safety glasses with side shields (or goggles).
- **Skin protection**: Wear appropriate chemical resistant gloves.
- **Hand protection**: Wear appropriate chemical resistant gloves. Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
- **Respiratory protection**: In case of insufficient ventilation, wear suitable respiratory equipment.
- **Thermal hazards**: Wear appropriate thermal protective clothing, when necessary.
- **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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Viscous. Liquid.</td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Form</td>
<td>Viscous. Liquid.</td>
</tr>
<tr>
<td>Colour</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>245 °C (473 °F) estimated</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 93.3 °C (&gt; 199.9 °F)</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td></td>
</tr>
<tr>
<td>Flammability limit - lower (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability limit - upper (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive limit - lower (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive limit – upper (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>0.02 hPa estimated</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
</tr>
<tr>
<td>Solubility (water)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
</tbody>
</table>
Viscosity
Not available.

Other information
Density 1.18 g/cm³ estimated
Explosive properties Not explosive.
Flammability class Combustible IIB estimated
Oxidising properties Not oxidising.
Specific gravity 1.18 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. Avoid temperatures exceeding the flash point. 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
Causes skin irritation. May cause an allergic skin reaction.

Eye contact
Causes serious eye irritation.

Ingestion
Expected to be a low ingestion hazard.

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

Information on toxicological effects

Acute toxicity
Not known.

Skin corrosion/irritation
Causes skin irritation.

Serious eye damage/eye irritation
Causes serious eye irritation.

Respiratory or skin sensitisation
Respiratory sensitisation
Not a respiratory sensitizer.

Skin sensitisation
May cause an allergic skin reaction.

Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity
Not available.

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
Not classified.

Aspiration hazard
Not an aspiration hazard.

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).

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>No</td>
</tr>
<tr>
<td>Country(s) or region</td>
<td>Inventory name</td>
<td>On inventory (yes/no)*</td>
</tr>
<tr>
<td>------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>------------------------</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 (PICCS)</td>
<td>No</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**
29-May-2019  
**Version No.**
01

**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.
1. Identification

Product identifier: DEVCON® DFense Blok™ Surface Wetting Agent Hardener
Other means of identification:
  SKU#: 5603
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:
  E-mail:
  Emergency telephone number: 800-424-9300
  Supplier: Not available.

2. Hazard identification

Physical hazards: Not classified.
Health hazards:
  Acute toxicity, oral: Category 4
  Acute toxicity, dermal: Category 4
  Skin corrosion/irritation: Category 1
  Serious eye damage/eye irritation: Category 1
  Sensitization, respiratory: Category 1
  Sensitization, skin: Category 1A
  Reproductive toxicity: Category 2

Environmental hazards: Not classified.

Label elements:

Signal word: Danger

Hazard statement: Harmful if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of damaging fertility or the unborn child.

Precautionary statement:

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist/vapours. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.
Response

IF SWALLOWED: rinse mouth. DO NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with 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. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Storage

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

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>4-TERT-BUTYLPHENOL</td>
<td></td>
<td>98-54-4</td>
<td>10 - 30</td>
</tr>
<tr>
<td>M-XYLENE-ALPHA,ALPHA’-DIAMINE</td>
<td></td>
<td>1477-55-0</td>
<td>10 - 30</td>
</tr>
<tr>
<td>DIETHYLENETRIAMINE</td>
<td></td>
<td>111-40-0</td>
<td>5 - 10</td>
</tr>
<tr>
<td>TRIMETHYLHEXAMETHYLENE DIAMINE</td>
<td></td>
<td>25513-64-8</td>
<td>1 - 5</td>
</tr>
<tr>
<td>N-(2-AMINOETHYL)PIPERAZINE</td>
<td></td>
<td>140-31-8</td>
<td>1 - &lt;3</td>
</tr>
<tr>
<td>Triethanolamine</td>
<td></td>
<td>102-71-6</td>
<td>1 - &lt;3</td>
</tr>
<tr>
<td>PIPERAZINE</td>
<td></td>
<td>110-85-0</td>
<td>0.6</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td></td>
<td>13463-67-7</td>
<td>0.18</td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td></td>
<td>30 - 60</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

If breathing is difficult, remove 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. If experiencing respiratory symptoms: Call a poison center or doctor/physician.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control centre immediately. Chemical burns must be treated by a physician. 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. Call a physician or poison control centre immediately.

Ingestion

Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Difficulty in breathing.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information

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

5. Fire-fighting measures

Suitable extinguishing media

Alcohol resistant foam. 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
Prevent entry into waterways, sewer, basements or confined areas.

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.

### 7. Handling and storage

#### Precautions for safe handling
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist/vapours. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. 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 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>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIETHYLENETRIAMINE (CAS 111-40-0)</td>
<td>TWA</td>
<td>1 ppm</td>
<td></td>
</tr>
<tr>
<td>M-XYLENE-ALPHA,ALPHA’-DIAMINE (CAS 1477-55-0)</td>
<td>Ceiling</td>
<td>0.1 mg/m3</td>
<td></td>
</tr>
<tr>
<td>PIPERAZINE (CAS 110-85-0)</td>
<td>TWA</td>
<td>0.03 ppm</td>
<td>Inhalable fraction and vapor.</td>
</tr>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>TWA</td>
<td>10 mg/m3</td>
<td></td>
</tr>
<tr>
<td>TRIETHANOLAMINE (CAS 102-71-6)</td>
<td>TWA</td>
<td>5 mg/m3</td>
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</tr>
</tbody>
</table>

**Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
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<td>4.2 mg/m3</td>
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<td>0.1 mg/m3</td>
</tr>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>TWA</td>
<td>10 mg/m3</td>
</tr>
<tr>
<td>TRIETHANOLAMINE (CAS 102-71-6)</td>
<td>TWA</td>
<td>5 mg/m3</td>
</tr>
<tr>
<td>Components</td>
<td>Type</td>
<td>Value</td>
</tr>
<tr>
<td>------------</td>
<td>------------</td>
<td>-------------</td>
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<tr>
<td>DIETHYLENETRIAMINE (CAS 111-40-0)</td>
<td>TWA</td>
<td>1 ppm</td>
</tr>
<tr>
<td>M-XYLENE-ALPHA,ALPHA'-DIAMINE (CAS 1477-55-0)</td>
<td>Ceiling</td>
<td>0.1 mg/m³</td>
</tr>
<tr>
<td>PIPERAZINE (CAS 110-85-0)</td>
<td>STEL</td>
<td>1 mg/m³</td>
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<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
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<td>0.3 mg/m³</td>
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<tr>
<td>TRIETHANOLAMINE (CAS 102-71-6)</td>
<td>TWA</td>
<td>10 mg/m³</td>
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<tr>
<td>TRIETHANOLAMINE (CAS 102-71-6)</td>
<td>TWA</td>
<td>1 ppm</td>
</tr>
</tbody>
</table>

**Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIETHYLENETRIAMINE (CAS 111-40-0)</td>
<td>TWA</td>
<td>1 ppm</td>
<td></td>
</tr>
<tr>
<td>M-XYLENE-ALPHA,ALPHA'-DIAMINE (CAS 1477-55-0)</td>
<td>Ceiling</td>
<td>0.1 mg/m³</td>
<td></td>
</tr>
<tr>
<td>PIPERAZINE (CAS 110-85-0)</td>
<td>TWA</td>
<td>0.03 ppm</td>
<td>Inhalable fraction and vapor.</td>
</tr>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>TRIETHANOLAMINE (CAS 102-71-6)</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIETHYLENETRIAMINE (CAS 111-40-0)</td>
<td>TWA</td>
<td>1 ppm</td>
<td></td>
</tr>
<tr>
<td>M-XYLENE-ALPHA,ALPHA'-DIAMINE (CAS 1477-55-0)</td>
<td>Ceiling</td>
<td>0.1 mg/m³</td>
<td></td>
</tr>
<tr>
<td>PIPERAZINE (CAS 110-85-0)</td>
<td>TWA</td>
<td>0.03 ppm</td>
<td>Inhalable fraction and vapor.</td>
</tr>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>TRIETHANOLAMINE (CAS 102-71-6)</td>
<td>TWA</td>
<td>3.1 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

**Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIETHYLENETRIAMINE (CAS 111-40-0)</td>
<td>TWA</td>
<td>4.2 mg/m³</td>
<td></td>
</tr>
<tr>
<td>M-XYLENE-ALPHA,ALPHA'-DIAMINE (CAS 1477-55-0)</td>
<td>Ceiling</td>
<td>1 ppm</td>
<td></td>
</tr>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>TWA</td>
<td>0.1 mg/m³</td>
<td>Total dust.</td>
</tr>
<tr>
<td>TRIETHANOLAMINE (CAS 102-71-6)</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td></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>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIETHYLENETRIAMINE (CAS 111-40-0)</td>
<td>15 minute</td>
<td>2 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 hour</td>
<td>1 ppm</td>
<td></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>M-XYLENE-ALPHA,ALPHA’-DIAMINE (CAS 1477-55-0)</td>
<td>Ceiling</td>
<td>0.1 mg/m³</td>
</tr>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>15 minute</td>
<td>20 mg/m³</td>
</tr>
<tr>
<td>TRIETHANOLAMINE (CAS 102-71-6)</td>
<td>8 hour</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>TRIETHANOLAMINE (CAS 102-71-6)</td>
<td>15 minute</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>TRIETHANOLAMINE (CAS 102-71-6)</td>
<td>8 hour</td>
<td>5 mg/m³</td>
</tr>
</tbody>
</table>

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

Exposure guidelines

Canada - Alberta OELs: Skin designation
DIETHYLENETRIAMINE (CAS 111-40-0) Can be absorbed through the skin.
M-XYLENE-ALPHA,ALPHA’-DIAMINE (CAS 1477-55-0) Can be absorbed through the skin.

Canada - British Columbia OELs: Skin designation
DIETHYLENETRIAMINE (CAS 111-40-0) Can be absorbed through the skin.
M-XYLENE-ALPHA,ALPHA’-DIAMINE (CAS 1477-55-0) Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation
DIETHYLENETRIAMINE (CAS 111-40-0) Can be absorbed through the skin.
M-XYLENE-ALPHA,ALPHA’-DIAMINE (CAS 1477-55-0) Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation
DIETHYLENETRIAMINE (CAS 111-40-0) Can be absorbed through the skin.
M-XYLENE-ALPHA,ALPHA’-DIAMINE (CAS 1477-55-0) Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation
DIETHYLENETRIAMINE (CAS 111-40-0) Can be absorbed through the skin.
M-XYLENE-ALPHA,ALPHA’-DIAMINE (CAS 1477-55-0) Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation
DIETHYLENETRIAMINE (CAS 111-40-0) Can be absorbed through the skin.
M-XYLENE-ALPHA,ALPHA’-DIAMINE (CAS 1477-55-0) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation
DIETHYLENETRIAMINE (CAS 111-40-0) Can be absorbed through the skin.
M-XYLENE-ALPHA,ALPHA’-DIAMINE (CAS 1477-55-0) Can be absorbed through the skin.

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. Eye wash facilities and emergency shower must be available when handling this product.

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
Observe any medical surveillance requirements. 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. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance
Liquid.

Physical state
Liquid.

Form
Liquid.

Colour
Amber.
Odour
Ammoniacal. fishy

Odour threshold
Not available.

pH
Not available.

Melting point/freezing point
-39 °C (-38.2 °F) estimated

Initial boiling point and boiling range
207 °C (404.6 °F) estimated

Flash point
100.0 °C (212.0 °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
0.15 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
398.9 °C (750.02 °F) estimated

Decomposition temperature
Not available.

Viscosity
Not available.

Other information
Density
1.01 g/cm³ estimated

Explosive properties
Not explosive.

Flammability class
Combustible III B estimated

Oxidising properties
Not oxidising.

Specific gravity
1.01 estimated

VOC
0.3 % 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
Hazardous polymerisation does not occur.

Conditions to avoid
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials
Strong acids. Alkali metals.

Hazardous decomposition products
No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation
May cause irritation to the respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Prolonged inhalation may be harmful.
Skin contact: Causes severe skin burns. Harmful in contact with skin. May cause an allergic skin reaction.

Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.

Eye contact: Causes serious eye damage.

Ingestion: Causes digestive tract burns. Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics: Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Difficulty in breathing.

Information on toxicological effects:

**Acute toxicity**: Harmful in contact with skin. Harmful if swallowed.

**Components**

<table>
<thead>
<tr>
<th>Component</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIPERAZINE (CAS 110-85-0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>2050 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Triethanolamine (CAS 102-71-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
<td>&gt; 20000 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>8 g/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**: Causes severe skin burns and eye damage.

**Serious eye damage/eye irritation**: Causes serious eye damage.

**Respiratory or skin sensitisation**

ACGIH sensitisation

- PIPERAZINE AND SALTS, INHALABLE FRACTION AND VAPOR, AS PIPERAZINE (CAS 110-85-0): Respiratory sensitisation

Canada - Alberta OELs: Irritant

- DIETHYLENETRIAMINE (CAS 111-40-0): Irritant
- M-XYLENE-ALPHA,ALPHA':DIAMINE (CAS 1477-55-0): Irritant
- Titanium dioxide (CAS 13463-67-7): Irritant
- Triethanolamine (CAS 102-71-6): Irritant

Canada - British Columbia OELs: Respiratory or skin sensitisier

- DIETHYLENETRIAMINE (CAS 111-40-0): Capable of causing respiratory, dermal or conjunctival sensitization.
- PIPERAZINE (CAS 110-85-0): Capable of causing respiratory, dermal or conjunctival sensitization.

Canada - Manitoba OELs: Hazard: Dermal sensitization

- PIPERAZINE (CAS 110-85-0): Dermal sensitization

Canada - Manitoba OELs: Hazard: Respiratory sensitization

- PIPERAZINE (CAS 110-85-0): Respiratory sensitisation

Canada - Quebec OELs: Sensitizer

- Triethanolamine (CAS 102-71-6): 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**: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**

ACGIH Carcinogens

- PIPERAZINE (CAS 110-85-0): A4 Not classifiable as a human carcinogen.
- Titanium dioxide (CAS 13463-67-7): A4 Not classifiable as a human carcinogen.
## Canada - Manitoba OELs: carcinogenicity

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIPERAZINE (CAS 110-85-0)</td>
<td>Not classifiable as a human carcinogen.</td>
</tr>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>Not classifiable as a human carcinogen.</td>
</tr>
</tbody>
</table>

### IARC Monographs. Overall Evaluation of Carcinogenicity

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide (CAS 13463-67-7)</td>
<td>2B Possibly carcinogenic to humans.</td>
</tr>
<tr>
<td>Triethanolamine (CAS 102-71-6)</td>
<td>3 Not classifiable as to carcinogenicity to humans.</td>
</tr>
</tbody>
</table>

### Reproductive toxicity
- Suspected of damaging fertility or the unborn child.

### Specific target organ toxicity - single exposure
- Not classified.

### Specific target organ toxicity - repeated exposure
- Not classified.

### Aspiration hazard
- Not an aspiration hazard.

### Chronic effects
- Prolonged inhalation may be harmful. May be harmful if absorbed through skin.
  - Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.

### Ecological information

#### 12. Ecological information

<table>
<thead>
<tr>
<th>Persistence and degradability</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioaccumulative potential</td>
<td>No data is available on the degradability of any ingredients in the mixture.</td>
</tr>
<tr>
<td>Partition coefficient n-octanol / water (log Kow)</td>
<td></td>
</tr>
<tr>
<td>PIPERAZINE</td>
<td>-1.17</td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>-1</td>
</tr>
<tr>
<td>Mobility in soil</td>
<td>No data available.</td>
</tr>
<tr>
<td>Other adverse effects</td>
<td>No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.</td>
</tr>
</tbody>
</table>

### 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**
  - **UN number**: UN3267
  - **UN proper shipping name**: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (M-XYLENE-ALPHA,ALPHA'-DIAMINE, 4-tert-butylphenol), Limited Quantity
  - **Transport hazard class(es)**
    - **Class**: 8
    - **Subsidiary risk**: -
    - **Packing group**: III
  - **Environmental hazards**: Not available.
  - **Special precautions for user**: Read safety instructions, SDS and emergency procedures before handling.

- **IATA**
  - **UN number**: UN3267
  - **UN proper shipping name**: Corrosive liquid, basic, organic, n.o.s. (M-XYLENE-ALPHA,ALPHA'-DIAMINE, 4-tert-butylphenol), Limited Quantity
  - **Transport hazard class(es)**
    - **Class**: 8

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**Material name**: DEVCON® DFense Blok™ Surface Wetting Agent Hardener

5603 Version #: 01 Issue date: 29-May-2019

SDS CANADA 8 / 10
Material name: DEVCON® DFense Blok™ Surface Wetting Agent Hardener

**15. Regulatory information**

**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.

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.
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>No</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 (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>

*“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: 29-May-2019
Version No.: 01

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.