Safety Data Sheet

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier
Product Name

- SWAK™ anaerobic pipe thread sealant

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified use(s)

- Thread Sealant

1.3 Details of the supplier of the safety data sheet
Manufacturer

- Swagelok Manufacturing Company
  29495 F.A. Lennon Dr.
  Solon, OH 44139
  United States

Telephone (General)

- 440-349-5600

1.4 Emergency telephone number
Manufacturer

- (800)-424-9300 - Chemtrec

Section 2: Hazards Identification

EU/EEC
According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP

- Acute Toxicity Oral 4 - H302
- Skin Sensitization 1 - H317
- Eye Irritation 2 - H319
- Germ Cell Mutagenicity 2 - H341
- Carcinogenicity 2 - H351

DSD/DPD

- Irritant (Xi)
- Harmful (Xn)
- Mutagenic Substances - Category 3
- Carcinogenic Substances - Category 3
- R36, R40, R43, R68

2.2 Label Elements

CLP

WARNING

Hazard statements

- H302 - Harmful if swallowed
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H341 - Suspected of causing genetic defects.
H351 - Suspected of causing cancer.

Precautionary statements

Prevention
- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P261 - Avoid breathing mists, vapours, and/or spray.
- P264 - Wash thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response
- P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
- P363 - Wash contaminated clothing before reuse.
- P321 - Specific treatment, see supplemental first aid information.
- P333+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.
- Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 - If eye irritation persists: Get medical advice/attention.
- P305+P351+P338 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.

Storage/Disposal
- P405 - Store locked up.
- P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Supplemental information
- 95-99 percent of this product consists of an ingredient of unknown toxicity.

Risk phrases
- R36 - Irritating to eyes.
- R40 - Limited evidence of a carcinogenic effect.
- R43 - May cause sensitisation by skin contact.
- R68 - Possible risk of irreversible effects.

Safety phrases
- S24 - Avoid contact with skin.
- S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S33 - Wear suitable protective clothing.
- S37 - Wear suitable gloves.
- S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S53 - Avoid exposure - obtain special instructions before use.

2.3 Other Hazards

CLP
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD
- According to European Directive 1999/45/EC this preparation is considered dangerous.

UN GHS

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

2.1 Classification of the substance or mixture

UN GHS
- Acute Toxicity Oral 4
- Skin Mild Irritation 3
- Skin Sensitization 1
2.2 Label elements
UN GHS

WARNING

Hazard statements ● Harmful if swallowed
Causes mild skin irritation
May cause an allergic skin reaction
Causes serious eye irritation
Suspected of causing genetic defects.
Suspected of causing cancer.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention ●
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe mists, vapours, and/or spray.
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.
Use personal protective equipment as required.

Response ●
IF ON SKIN: Wash with plenty of soap and water.
Wash contaminated clothing before reuse.
Specific treatment, see supplemental first aid information.
If skin irritation or rash occurs: Get medical advice/attention.
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 SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.
Rinse mouth.
IF exposed or concerned: Get medical advice/attention.
Get medical advice/attention if you feel unwell.

Storage/Disposal ●
Store locked up.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Supplemental information ●
95-99 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other hazards
UN GHS

According to the Globally Harmonized Standard for Classification and Labeling (GHS) this product is considered hazardous.

United States (US)
According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture
OSHA HCS 2012

● Acute Toxicity Oral 4
Skin Sensitization 1
Eye Irritation 2
Germ Cell Mutagenicity 2
Carcinogenicity 2
Specific Target Organ Toxicity Repeated Exposure 2
2.2 Label elements
OSHA HCS 2012

WARNING

Hazard statements
- Harmful if swallowed
- May cause an allergic skin reaction
- Causes serious eye irritation
- Suspected of causing genetic defects.
- Suspected of causing cancer.
- May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe mists, vapours, and/or spray.
- 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.

Response
- If on skin: Wash with plenty of water.
- Wash contaminated clothing before reuse.
- Specific treatment, see supplemental first aid information.
- If skin irritation or rash occurs: Get medical advice/attention.
- 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 SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.
- Rinse mouth.
- IF exposed or concerned: Get medical advice/attention.
- Get medical advice/attention if you feel unwell.

Storage/Disposal
- Store locked up.
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Supplemental information
- 95-99 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other hazards
OSHA HCS 2012

Canada
According to: WHMIS

2.1 Classification of the substance or mixture
WHMIS
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.2 Label elements
WHMIS
- Other Toxic Effects - D2A
- Other Toxic Effects - D2B

2.3 Other hazards
WHMIS
- In Canada, the product mentioned above is considered hazardous under the
## Section 3 - Composition/Information on Ingredients

### 3.1 Substances

- Material does not meet the criteria of a substance.

### 3.2 Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Identifiers</th>
<th>%</th>
<th>LD50/LC50</th>
<th>Classifications According to Regulation/Directive</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polytetrafluoroethylene</td>
<td>CAS:9002-84-0</td>
<td>30% TO 40%</td>
<td>NDA</td>
<td>UN GHS: Not Classified</td>
<td>NDA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EU DSD/DPD: Not Classified</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EU CLP: Not Classified</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OSHA HCS 2012: Not Classified</td>
<td></td>
</tr>
<tr>
<td>ethoxylated Bisphenol A Dimethacrylate</td>
<td>CAS:41637-38-1</td>
<td>30% TO 40%</td>
<td>NDA</td>
<td>UN GHS: Eye Irrit. 2; Skin Sens. 1</td>
<td>NDA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EU DSD/DPD: Xi R36, R43</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EU CLP: Eye Irrit. 2, H319; Skin Sens. 1, H317</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OSHA HCS 2012: Eye Irrit. 2; Skin Sens. 1</td>
<td></td>
</tr>
<tr>
<td>Polymeric Plasticizer</td>
<td>Proprietary</td>
<td>20% TO 30%</td>
<td>NDA</td>
<td>UN GHS: Not Classified</td>
<td>NDA</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>EU DSD/DPD: Not Classified</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>EU CLP: Not Classified</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OSHA HCS 2012: Not Classified</td>
<td></td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>CAS:13463-67-7</td>
<td>1% TO 5%</td>
<td>NDA</td>
<td>UN GHS: Skin Irrit. 3; Mut. 2; Carc. 2; STOT RE 2 (Lungs); Aquatic Chronic 4</td>
<td>NDA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EU DSD/DPD: Mut. Cat. 3, Xn, R68; Carc. Cat. 3, Xn, R40-48/20</td>
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</tr>
<tr>
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<td></td>
<td></td>
<td>EU CLP: Muta. 2, H341; Carc. 2, H351; STOT RE 2 (Lungs), H373</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OSHA HCS 2012: Muta. 2; Carc. 2; STOT RE 2 (Lungs)</td>
<td></td>
</tr>
<tr>
<td>Polyethylene glycol</td>
<td>CAS:25322-68-3</td>
<td>1% TO 5%</td>
<td>Ingestion/Oral-Rat LD50 • 600 mg/kg Skin-Rabbit LD50 • &gt;20 g/kg</td>
<td>UN GHS: Skin Irrit. 3; Eye Irrit. 2; Acute Tox 4 (orl)</td>
<td>NDA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EU DSD/DPD: Xn; R22</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EU CLP: Acute Tox. 4, H302; Eye Irrit. 2, H319</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OSHA HCS 2012: Comb. Dust; Acute Tox. 4 (orl); Eye Irrit. 2</td>
<td></td>
</tr>
<tr>
<td>Silica, amorphous fumed</td>
<td>CAS:112945-52-5</td>
<td>&lt; 1%</td>
<td>Ingestion/Oral-Rat LD50 • 3160 mg/kg</td>
<td>UN GHS: Acute Tox. 5 (orl)</td>
<td>A new CAS, 11245-52-5, has been assigned to amorphous, fumed silica to distinguish it from crystalline silica. This product meets TSCA requirements and is listed on the TSCA inventory as silica with CAS 7631-86-9.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EU DSD/DPD: Not Classified</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>EU CLP: Not Classified</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>OSHA HCS 2012: Not Classified</td>
<td></td>
</tr>
</tbody>
</table>
### Section 4 - First Aid Measures

#### 4.1 Description of first aid measures

**Inhalation**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Get medical attention if symptoms occur.

**Skin**
- If on skin wipe off excess then wash with penty of soap and water. Get medical attention if symptoms occur. Wash contaminated clothing before reuse.

**Eye**
- If in eyes do not rub, dab while removing excess. Flush eyes with running water. Get medical attention if symptoms occur.

**Ingestion**
- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. Get medical attention if symptoms occur.

#### 4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

#### 4.3 Indication of any immediate medical attention and special treatment needed

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

#### 4.4 Other information

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

### Section 5 - Firefighting Measures

#### 5.1 Extinguishing media

**Suitable Extinguishing Media**
- Use CO2, dry chemical, or foam.

**Unsuitable Extinguishing Media**
- No data available.

#### 5.2 Special hazards arising from the substance or mixture

**Unusual Fire and Explosion Hazards**
- Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

**Hazardous Combustion Products**
- At temperatures above 482°F/250°C, may produce decomposition products containing carbon monoxide, carbon dioxide, hydrogen products or gases formed: fluoride, and
5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA). Keep unauthorized personnel away.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions
- Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact.

Emergency Procedures
- None required.

6.2 Environmental precautions
- No special precautions required.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures
- Stop leak if you can do it without risk. SMALL SPILLS: Wipe up and place into containers for later disposal.

6.4 Reference to other sections
- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling
- Use good safety and industrial hygiene practices. Avoid contact with heat and ignition sources. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe mists, vapours, and/or spray. Avoid contact with skin, eyes, and clothing. Do not eat, drink or smoke when using this product. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage
- Store away from heat and ignition sources at ambient temperature. Store in original container.

7.3 Specific end use(s)
- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

<table>
<thead>
<tr>
<th></th>
<th>Exposure Limits/Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Result</td>
</tr>
<tr>
<td>Titanium dioxide (13463-67-7)</td>
<td>STELs</td>
</tr>
<tr>
<td></td>
<td>TWAs</td>
</tr>
<tr>
<td>Silica, amorphous (7631-86-9)</td>
<td>MAKs</td>
</tr>
<tr>
<td>Compound</td>
<td>Ceilings</td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>Polyethylene glycol (25322-68-3)</td>
<td>Not established</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Polyethylene glycol (25322-68-3)</td>
<td>Not established</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Polytetrafluoroethylene as Particulates not otherwise classified (PNOC)</td>
<td>Not established</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Exposure Limits/Guidelines (Con't.)

<table>
<thead>
<tr>
<th>Result</th>
<th>Germany TRGS</th>
<th>Japan</th>
<th>Korea</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide (13463-67-7)</td>
<td>TWAs</td>
<td>Not established</td>
<td>0.3 mg/m³</td>
<td>10 mg/m³ TWA (Serial No. 461)</td>
<td>Not established</td>
</tr>
<tr>
<td>Silica, amorphous (7631-86-9)</td>
<td>TWAs</td>
<td>Not established</td>
<td>Not established</td>
<td>6 mg/m³ TWA</td>
<td>Not established</td>
</tr>
<tr>
<td>Polyethylene glycol (25322-68-3)</td>
<td>TWAs</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
</tr>
</tbody>
</table>

**Titanium dioxide (13463-67-7)**

- **TWAs**: Not established
- **Germany TRGS**: 0.3 mg/m³ (Provisional)
- **Japan**: 10 mg/m³ TWA (Serial No. 461)
- **Korea**: Not established
- **NIOSH**: Not established
- **OSHA**: 15 mg/m³ TWA (total dust)

**Silica, amorphous (7631-86-9)**

- **TWAs**: 4 mg/m³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, inhalable fraction)
- **Germany TRGS**: Not established
- **Japan**: Not established
- **Korea**: 6 mg/m³ TWA
- **NIOSH**: Not established
- **OSHA**: Not established

**Polyethylene glycol (25322-68-3)**

- **TWAs**: 1000 mg/m³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, average molecular weight 200–400, inhalable fraction, exposure factor 8)
Polytetrafluoroethylene
as Particulates not otherwise classified (PNOC)

| TWAs                      | Not established | Not established | 10 mg/m³ TWA (no more than 1% crystalline silica, Serial No. 717) as Particulates not otherwise classified (PNOC) | Not established | 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction) as Particulates not otherwise classified (PNOC) |

Exposure Control Notations

ACGIH
- Titanium dioxide (13463-67-7): Carcinogens: (A4 - Not Classifiable as a Human Carcinogen)
- Polyethylene glycol (25322-68-3): Pregnancy: (no risk to embryo/fetus if exposure limits adhered to (average molecular weight 200 - 600))
- Titanium dioxide (13463-67-7): Carcinogens: (Category 3A (could be carcinogenic for man, inhalable fraction with the exception of ultra small particles))
- Silica, amorphous (7631-86-9): Pregnancy: (no risk to embryo/fetus if exposure limits adhered to)

Exposure Limits Supplemental

OSHA
- Silica, amorphous (7631-86-9): Mineral Dusts: (20 mppcf TWA; (80)/(% SiO2) mg/m³ TWA)

ACGIH
- Titanium dioxide (13463-67-7): TLV Basis - Critical Effects: (lower respiratory tract irritation) | Notice of Intended Changes (TLVs): (Withdrawn from notice of intended changes)

8.2 Exposure controls

Engineering Measures/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.

Personal Protective Equipment
- In case of insufficient ventilation, wear suitable respiratory equipment.
- Protective eye wear is recommended if there is potential for eye contact.
- Wear appropriate gloves.

Environmental Exposure Controls
- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. Follow best practice for site management and disposal of waste.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene
MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration
NIOSH = National Institute of Occupational Safety and Health
OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures
TLV = Threshold Limit Value determined by the American Conference of Governmental Industrial Hygienists (ACGIH)
TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures
TWAEV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Material Description</th>
<th>Physical Form</th>
<th>Appearance/Description</th>
<th>Grainy off-white paste with mild odor.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Form</td>
<td>Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Off-white</td>
<td>Odor</td>
<td>Mild</td>
</tr>
</tbody>
</table>

Preparation Date: 13/July/2012
Revision Date: 22/June/2015

Format: EU CLP/REACH Language: English (US)
WHMIS, UN GHS, EU CLP, EU DSD/DPD, OSHA HCS 2012

Page 9 of 29
9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- At temperatures above 482F/250C, hazardous fumes may be generated.

10.5 Incompatible materials

- Pure oxygen, fluorine, chlorine, oxidizers, strong reducers, free radical initiators, oxygen scavengers, peroxides, persulfates, accelerators, strong bases, and strong acids.

10.6 Hazardous decomposition products

- At temperatures above 482F/250C, may produce decomposition products containing carbon monoxide, carbon dioxide, hydrogen products or gases formed: fluoride, and perfluoro hydrocarbons.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>Components</th>
<th>Polyethylene glycol (1% TO 5%)</th>
<th>Acute Toxicity: Ingestion/Oral-Rat LD50 • 600 mg/kg; Irritation: Eye-Rabbit • 100 µL • Mild irritation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25322-68-3</td>
<td>Irritation: Skin-Human • 300 µg 3 Day(s)-Intermittent • Mild irritation; Multi-dose Toxicity: Inhalation-Rat TCLo • 250 mg/m³ 6 Hour(s) 4 Week(s)-Intermittent; Lungs, Thorax, or</td>
</tr>
<tr>
<td>GHS Properties</td>
<td>Classification</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>----------------</td>
<td></td>
</tr>
</tbody>
</table>
| **Acute toxicity** | EU/CLP • Acute Toxicity - Oral 4 - ATEmix (oral) = 600 mg/kg  
OSHA HCS 2012 • Acute Toxicity - Oral 4 - ATEmix (oral) = 600 mg/kg  
UN GHS • Acute Toxicity - Oral 4 - ATEmix (oral) = 600 mg/kg |
| **Aspiration Hazard** | EU/CLP • Data lacking  
OSHA HCS 2012 • Data lacking  
UN GHS • Data lacking |
| **Carcinogenicity** | EU/CLP • Carcinogenicity 2  
OSHA HCS 2012 • Carcinogenicity 2  
UN GHS • Carcinogenicity 2 |
| **Germ Cell Mutagenicity** | EU/CLP • Germ Cell Mutagenicity 2  
OSHA HCS 2012 • Germ Cell Mutagenicity 2  
UN GHS • Germ Cell Mutagenicity 2 |
| **Skin corrosion/Irritation** | EU/CLP • Data lacking  
OSHA HCS 2012 • Data lacking  
UN GHS • Skin Mild Irritation 3 |
| **Skin sensitization** | EU/CLP • Skin Sensitizer 1  
OSHA HCS 2012 • Skin Sensitizer 1  
UN GHS • Skin Sensitizer 1 |
| **STOT-RE** | EU/CLP • Data lacking  
OSHA HCS 2012 • Specific Target Organ Toxicity Repeated Exposure 2  
UN GHS • Specific Target Organ Toxicity Repeated Exposure 2 |
| **STOT-SE** | EU/CLP • Data lacking  
OSHA HCS 2012 • Data lacking |
Potential Health Effects

Inhalation

Acute (Immediate)
- Under normal conditions of use, no health effects are expected. Inhalation of decomposition products can cause temporary influenza-like symptoms which are described as “polymer fume fever”. Symptoms include fever, cough and malaise.

Chronic (Delayed)
- Repeated and prolonged exposure to titanium, a component of this material, may cause damage to the lungs.

Skin

Acute (Immediate)
- Contact with SWAK may cause mild skin irritation. May cause skin sensitization. Symptoms include redness, and skin rash.

Chronic (Delayed)
- No data available.

Eye

Acute (Immediate)
- Causes serious eye irritation.

Chronic (Delayed)
- No data available.

Ingestion

Acute (Immediate)
- Harmful if swallowed.

Chronic (Delayed)
- No data available.

Mutagenic Effects
- Repeated and prolonged exposure may cause mutagenic effects.

Carcinogenic Effects
- Titanium dioxide has been listed as a possible human carcinogen by IARC (Group 2B). According to IARC, some inhalation studies on experimental animals have suggested the carcinogenicity of high concentrations of titanium dioxide. However, during normal conditions of use inhalation of this material is not expected to occur.

<table>
<thead>
<tr>
<th>Carcinogenic Effects</th>
<th>CAS</th>
<th>IARC</th>
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<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>Group 2B-Possible Carcinogen</td>
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</table>

Key to abbreviations
LC = Lethal Concentration
LD = Lethal Dose
TC = Toxic Concentration
TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity
- Material data lacking.

12.2 Persistence and degradability
12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

### Section 13 - Disposal Considerations

13.1 Waste treatment methods

**Product waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

**Packaging waste**

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

### Section 14 - Transport Information

<table>
<thead>
<tr>
<th></th>
<th>14.1 UN number</th>
<th>14.2 UN proper shipping name</th>
<th>14.3 Transport hazard class(es)</th>
<th>14.4 Packing group</th>
<th>14.5 Environmental hazards</th>
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<tbody>
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<td>NDA</td>
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14.6 Special precautions for user

- None specified.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Data lacking.

14.8 Other information

- This material is not a regulated hazardous material with respect to the following transportation regulations: United States Department of Transportation (US DOT), Canadian Transportation of Dangerous Goods (TDG), Europe Transport of Dangerous Goods by Road/Inland Waterway (ADN), Europe Transport of Dangerous Goods by Road/Inland Waterway (ADR), International Air Transport Association (IATA) or International Maritime Transport (IMO/IMDG).

### Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**SARA Hazard Classifications**

- Acute, Chronic
### State Right To Know

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>MA</th>
<th>NJ</th>
<th>PA</th>
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<td>Yes</td>
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<tr>
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<td>41637-38-1</td>
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<tr>
<td>Polyethylene glycol</td>
<td>25322-68-3</td>
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<td>No</td>
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### Inventory

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<th>China</th>
<th>EU EINECS</th>
<th>EU ELNICS</th>
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<td>No</td>
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<th>Korea KECL</th>
<th>TSCA</th>
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<tr>
<td>Polyethylene glycol</td>
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<td>Yes</td>
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<tr>
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</tbody>
</table>

### Australia

#### Labor

**Australia - Work Health and Safety Regulations - Hazardous Substances Requiring Health Monitoring**
- etoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Polymeric Initiator Proprietary Not Listed
- Polytetrafluoroethylene 9002-84-0 Not Listed
- Silica, amorphous fumed 112945-52-5 Not Listed

**Australia - High Volume Industrial Chemicals List**
- etoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7
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### Australia - List of Designated Hazardous Substances - Classification

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<td>Silica, amorphous fumed</td>
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<td>Self classification required (respirable dust)</td>
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### Environment

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>Availability</th>
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<tbody>
<tr>
<td>ethoxylated Bisphenol A Dimethacrylate</td>
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### Australia - Ozone Protection Act - Scheduled Substances

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<th>CAS Number</th>
<th>Availability</th>
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<tr>
<td>Polyethylene glycol</td>
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<td>Titanium dioxide</td>
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<td>Silica, amorphous fumed</td>
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</table>

### Australia - Priority Existing Chemical Program

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<thead>
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<th>Substance</th>
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<th>Availability</th>
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<tr>
<td>Polyethylene glycol</td>
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<tr>
<td>Titanium dioxide</td>
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<tr>
<td>Polymeric Initiator</td>
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<tr>
<td>Polytetrafluoroethylene</td>
<td>9002-84-0</td>
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<td>Silica, amorphous fumed</td>
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### Canada

<table>
<thead>
<tr>
<th>Substance</th>
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<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specific Issues - Titanium dioxide, mixture containing on Health Canada's WHMIS Division website.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymeric Initiator</td>
<td>Proprietary</td>
<td>B3, C, D1A, E</td>
</tr>
</tbody>
</table>
### Polytetrafluoroethylene
- 9002-84-0
- Uncontrolled product according to WHMIS classification criteria

### Silica, amorphous fumed
- 112945-52-5
- Not Listed

### Canada - WHMIS - Ingredient Disclosure List
- ethoxylated Bisphenol A Dimethacrylate
- 41637-38-1
- Not Listed
- Polyethylene glycol
- 25322-68-3
- Not Listed
- Titanium dioxide
- 13463-67-7
- Not Listed
- Polymeric Initiator
- Private
- 1%
- Polytetrafluoroethylene
- 9002-84-0
- Not Listed
- Silica, amorphous fumed
- 112945-52-5
- Not Listed

### Environment
#### Canada - CEPA - Priority Substances List
- ethoxylated Bisphenol A Dimethacrylate
- 41637-38-1
- Not Listed
- Polyethylene glycol
- 25322-68-3
- Not Listed
- Titanium dioxide
- 13463-67-7
- Not Listed
- Polymeric Initiator
- Private
- Polytetrafluoroethylene
- 9002-84-0
- Not Listed
- Silica, amorphous fumed
- 112945-52-5
- Not Listed

### Europe
#### Other
**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification**
- ethoxylated Bisphenol A Dimethacrylate
- 41637-38-1
- Not Listed
- Polyethylene glycol
- 25322-68-3
- Not Listed
- Titanium dioxide
- 13463-67-7
- Not Listed
- Polymeric Initiator
- Private
- Xn; R21/22-48/20/22 T; R23 C; R34 N; R51-53 O; R7
- Polytetrafluoroethylene
- 9002-84-0
- Not Listed
- Silica, amorphous fumed
- 112945-52-5
- Not Listed

**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits**
- ethoxylated Bisphenol A Dimethacrylate
- 41637-38-1
- Not Listed
- Polyethylene glycol
- 25322-68-3
- Not Listed
- Titanium dioxide
- 13463-67-7
- Not Listed
- Polymeric Initiator
- Private
- 10%<=C: C; R:34 3%
- <=C<10%: Xi; R:37/38-41 1%
- <=C<3%: Xi; R:36/37
- Polytetrafluoroethylene
- 9002-84-0
- Not Listed
- Silica, amorphous fumed
- 112945-52-5
- Not Listed

**EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling**
- ethoxylated Bisphenol A Dimethacrylate
- 41637-38-1
- Not Listed
- Polyethylene glycol
- 25322-68-3
- Not Listed
- Titanium dioxide
- 13463-67-7
- Not Listed
- Polymeric Initiator
- Private
- Polytetrafluoroethylene
- 9002-84-0
- Not Listed
- Silica, amorphous fumed
- 112945-52-5
- Not Listed

### EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations
<table>
<thead>
<tr>
<th>Substance</th>
<th>EU CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases</th>
<th>Japan - ISHL Dangerous Substances</th>
<th>Japan - ISHL Designated Carcinogens</th>
<th>Japan - ISHL Harmful Substances Prohibited for Manufacture</th>
<th>Japan - ISHL Harmful Substances Requiring Workers to Subject to Medical Exams</th>
<th>Japan - ISHL Harmful Substances Subject to Obtaining Permission for Manufacturing</th>
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</thead>
<tbody>
<tr>
<td>ethoxylated Bisphenol A Dimethacrylate</td>
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### Japan - ISHL Harmful Substances Whose Names Are to be Indicated on the Label

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<th>CAS Number</th>
<th>Note</th>
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### Japan - ISHL Prevention of Lead Poisoning

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<th>Note</th>
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<td>Polyethylene glycol</td>
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### Japan - ISHL Mutagens - Existing Chemicals

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<th>Note</th>
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### Japan - ISHL Mutagens - New Chemicals

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### Japan - ISHL Notifiable Substances

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### Environment

#### Japan - Air Pollution Control Law - Emission Standards for Air Pollutants

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Japan - Environmental Quality Standards - Annual Air Quality
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- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Polymeric Initiator Proprietary Not Listed
- Polytetrafluoroethylene 9002-84-0 Not Listed
- Silica, amorphous fumed 112945-52-5 Not Listed

Japan - Environmental Quality Standards - Daily Air Quality
- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Polymeric Initiator Proprietary Not Listed
- Polytetrafluoroethylene 9002-84-0 Not Listed
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Japan - Environmental Quality Standards - Groundwater
- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Polymeric Initiator Proprietary Not Listed
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Japan - Environmental Quality Standards - Hourly Air Quality
- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
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Japan - Environmental Quality Standards - Soil Pollution
- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
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- Polymeric Initiator Proprietary Not Listed
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Japan - Environmental Quality Standards - Public Water/Groundwater - Monitored Substances and Guideline Values
- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
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Japan - Environmental Quality Standards - Public Water - Protection of Human Health
- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
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- Polytetrafluoroethylene 9002-84-0 Not Listed
- Silica, amorphous fumed 112945-52-5 Not Listed

### Japan - Ozone Depleting Substances - Annex C Group I
- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Polymeric Initiator proprietary Not Listed
- Polytetrafluoroethylene 9002-84-0 Not Listed
- Silica, amorphous fumed 112945-52-5 Not Listed

### Japan - Ozone Depleting Substances - Annex C Group II
- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Polymeric Initiator proprietary Not Listed
- Polytetrafluoroethylene 9002-84-0 Not Listed
- Silica, amorphous fumed 112945-52-5 Not Listed

### Japan - Ozone Depleting Substances - Annex C Group III
- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Polymeric Initiator proprietary Not Listed
- Polytetrafluoroethylene 9002-84-0 Not Listed
- Silica, amorphous fumed 112945-52-5 Not Listed

### Japan - Ozone Depleting Substances - Annex E Group I
- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Polymeric Initiator proprietary Not Listed
- Polytetrafluoroethylene 9002-84-0 Not Listed
- Silica, amorphous fumed 112945-52-5 Not Listed

### Japan - Pollutant Release Transfer Register (PRTR) - Class 1 Substances
- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Polymeric Initiator proprietary Not Listed
- Polytetrafluoroethylene 9002-84-0 Not Listed
- Silica, amorphous fumed 112945-52-5 Not Listed

### Japan - Pollutant Release Transfer Register (PRTR) - Class 2 Substances
- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Polymeric Initiator proprietary Not Listed
- Polytetrafluoroethylene 9002-84-0 Not Listed
- Silica, amorphous fumed 112945-52-5 Not Listed

### Inventory - Japan - Industrial Safety and Health Law Substances (ISHL)
- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed

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Preparation Date: 13/July/2012
Revision Date: 22/June/2015
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**Japan - Drinking Water Quality Standards - Supplied Water Quality Standard Values**

- ethoxylated Bisphenol A Dimethacrylate | 41637-38-1 | Not Listed
- Polyethylene glycol | 25322-68-3 | Not Listed
- Titanium dioxide | 13463-67-7 | Not Listed
- Polymeric Initiator | Proprietary | Not Listed
- Polytetrafluoroethylene | | Not Listed
- Silica, amorphous fumed | 9002-84-0 | Not Listed

**Japan - Drinking Water Quality Standards - Quality Control Guideline Values**

- ethoxylated Bisphenol A Dimethacrylate | 41637-38-1 | Not Listed
- Polyethylene glycol | 25322-68-3 | Not Listed
- Titanium dioxide | 13463-67-7 | Not Listed
- Polymeric Initiator | Proprietary | Not Listed
- Polytetrafluoroethylene | | Not Listed
- Silica, amorphous fumed | 9002-84-0 | Not Listed

**Japan - Drinking Water Quality Standards - Quality Control Guideline Values - Pesticides**

- ethoxylated Bisphenol A Dimethacrylate | 41637-38-1 | Not Listed
- Polyethylene glycol | 25322-68-3 | Not Listed
- Titanium dioxide | 13463-67-7 | Not Listed
- Polymeric Initiator | Proprietary | Not Listed
- Polytetrafluoroethylene | | Not Listed
- Silica, amorphous fumed | 9002-84-0 | Not Listed

**Japan - Chemical Substance Control Law (CSCL) - Examined Existing Chemical Substances**

- ethoxylated Bisphenol A Dimethacrylate | 41637-38-1 | Not Listed
- Polyethylene glycol | 25322-68-3 | Readily biodegradable
- Titanium dioxide | 13463-67-7 | Non-biodegradable/Low bioconcentration
- Polymeric Initiator | Proprietary | Non-biodegradable/Low bioconcentration
- Polytetrafluoroethylene | | Not Listed
- Silica, amorphous fumed | 9002-84-0 | Not Listed

**Japan - Fire Service Law - Hazardous Materials**

- ethoxylated Bisphenol A Dimethacrylate | 41637-38-1 | Group 4 - Flammable liquids III (listed under 4th Class petroleums)
- Polyethylene glycol | 25322-68-3 | Not Listed
- Titanium dioxide | 13463-67-7 | Not Listed
- Polymeric Initiator | Proprietary | Group 5 - Self-reactive materials I (Rank for mixture is II, listed under Organic peroxides)
- Polytetrafluoroethylene | | Not Listed
- Silica, amorphous fumed | 9002-84-0 | Not Listed

**Japan - Harmful Substances in Household Products**

- ethoxylated Bisphenol A Dimethacrylate | 41637-38-1 | Not Listed
- Polyethylene glycol | 25322-68-3 | Not Listed
- Titanium dioxide | 13463-67-7 | Not Listed
- Polymeric Initiator | Proprietary | Not Listed
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- Silica, amorphous fumed | 112945-52-5 | Not Listed
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Japan - ISHL Prevention of Tetraalkyl Lead Poisoning
• ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
• Polyethylene glycol 25322-68-3 Not Listed
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Japan - Japanese Pharmacopoeia Listing - Synthetics
• ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
• Polyethylene glycol 25322-68-3 (listed under Macrogol 400, 1500, 4000, 6000, 20000)
• Titanium dioxide 13463-67-7 Not Listed
• Polymeric Initiator Proprietary Not Listed
• Polytetrafluoroethylene 9002-84-0 Not Listed
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Japan - Japanese Pharmacopoeia Listing - Naturally Occurring Substances
• ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
• Polyethylene glycol 25322-68-3 Not Listed
• Titanium dioxide 13463-67-7 Not Listed
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Japan - Chemical Substance Control Law (CSCL) - Monitoring Chemical Substances
• ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
• Polyethylene glycol 25322-68-3 Not Listed
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Japan - Poisonous and Deleterious Substances
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Japan - Chemical Substance Control Law (CSCL) - Specified Chemical Substances
• ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
• Polyethylene glycol 25322-68-3 Not Listed
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### Japan - Poisonous and Deleterious Substances - Substances Not Considered Deleterious

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### Japan - Poisonous and Deleterious Substances - Substances Not Considered Poisonous

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### Korea - ISHL Working Environment Evaluation Standards - Administrative Control Levels

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<td>Not Listed</td>
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<tr>
<td>Polytetrafluoroethylene</td>
<td>9002-84-0</td>
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<tr>
<td>Silica, amorphous fumed</td>
<td>112945-52-5</td>
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### Korea - ISHA - Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>Listed Status</th>
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<tbody>
<tr>
<td>ethoxylated Bisphenol A Dimethacrylate</td>
<td>41637-38-1</td>
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### Korea - ISHA - Harmful Substances Requiring Permission

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### Korea - ISHA - Name, Toxicity and Protective Measures of New Chemical Substances

<table>
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<tr>
<th>Substance</th>
<th>CAS Number</th>
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<tr>
<td>ethoxylated Bisphenol A Dimethacrylate</td>
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   - (13-08-071); 13-05-678 (13-08-071); 13-06-005 (13-08-071); 13-06-074 (13-08-071); 13-06-153 (13-08-071); 13-06-197 (13-08-071); 13-08-071 (13-08-071)

   - Polyethylene glycol
   - Titanium dioxide
   - Polymeric Initiator
   - Proprietary
   - Not Listed

---

**Preparation Date:** 13/July/2012
**Revision Date:** 22/June/2015
**Format:** EU CLP/REACH Language: English (US)

WHMIS, UN GHS, EU CLP, EU DSD/DPD, OSHA HCS 2012

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**Page 24 of 29**
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<td>Silica, amorphous fumed</td>
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</table>

### Environment

**Korea - MOE - Toxic Chemicals Control Act (TCCA) - Observational Chemicals**

- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Polymeric Initiator Proprietary Not Listed
- Polytetrafluoroethylene 9002-84-0 Not Listed
- Silica, amorphous fumed 112945-52-5 Not Listed

**Korea - MOE - Toxic Chemicals Control Act (TCCA) - Prohibited Chemicals**

- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Polymeric Initiator Proprietary Not Listed
- Polytetrafluoroethylene 9002-84-0 Not Listed
- Silica, amorphous fumed 112945-52-5 Not Listed

**Korea - MOE - Toxic Chemicals Control Act (TCCA) - Restricted Chemicals**

- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Polymeric Initiator Proprietary Not Listed
- Polytetrafluoroethylene 9002-84-0 Not Listed
- Silica, amorphous fumed 112945-52-5 Not Listed

**Korea - MOE - Toxic Chemicals Control Act (TCCA) - Toxic Chemicals**

- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Polymeric Initiator Proprietary 5000 lb TQ
- Polytetrafluoroethylene 9002-84-0 Not Listed
- Silica, amorphous fumed 112945-52-5 Not Listed

### United States

#### Labor

**U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Polymeric Initiator Proprietary 5000 lb TQ
- Polytetrafluoroethylene 9002-84-0 Not Listed
- Silica, amorphous fumed 112945-52-5 Not Listed

**U.S. - OSHA - Specifically Regulated Chemicals**

- ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
- Polyethylene glycol 25322-68-3 Not Listed
- Titanium dioxide 13463-67-7 Not Listed
- Polymeric Initiator Proprietary Not Listed
- Polytetrafluoroethylene 9002-84-0 Not Listed
| Substance | CAS Number | Reportable Quantity | Status 
|
|-----------|------------|---------------------|----------------------|
| Silica, amorphous fumed | 112945-52-5 | Not Listed | Environment

### U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants
- ethoxylated Bisphenol A Dimethacrylate
- Polyethylene glycol
- Titanium dioxide
- Polymeric Initiator
- Polytetrafluoroethylene
- Silica, amorphous fumed

### U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities
- ethoxylated Bisphenol A Dimethacrylate
- Polyethylene glycol
- Titanium dioxide
- Polymeric Initiator
- Polytetrafluoroethylene
- Silica, amorphous fumed

### U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities
- ethoxylated Bisphenol A Dimethacrylate
- Polyethylene glycol
- Titanium dioxide
- Polymeric Initiator
- Polytetrafluoroethylene
- Silica, amorphous fumed

### U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs
- ethoxylated Bisphenol A Dimethacrylate
- Polyethylene glycol
- Titanium dioxide
- Polymeric Initiator
- Polytetrafluoroethylene
- Silica, amorphous fumed

### U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs
- ethoxylated Bisphenol A Dimethacrylate
- Polyethylene glycol
- Titanium dioxide
- Polymeric Initiator
- Polytetrafluoroethylene
- Silica, amorphous fumed

### U.S. - CERCLA/SARA - Section 313 - Emission Reporting
- ethoxylated Bisphenol A Dimethacrylate
- Polyethylene glycol
- Titanium dioxide
- Polymeric Initiator
- Polytetrafluoroethylene
- Silica, amorphous fumed

### U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing
- ethoxylated Bisphenol A Dimethacrylate
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<tr>
<th>Chemical</th>
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**U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics**

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**United States - California**

**Environment**

**U.S. - California - Proposition 65 - Carcinogens List**

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**U.S. - California - Proposition 65 - Developmental Toxicity**

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**U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)**

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**U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)**

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**U.S. - California - Proposition 65 - Reproductive Toxicity - Female**

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</tbody>
</table>
• Polyethylene glycol 25322-68-3 Not Listed
• Titanium dioxide 13463-67-7 Not Listed
• Polymeric Initiator Proprietary Not Listed
• Polytetrafluoroethylene 9002-84-0 Not Listed
• Silica, amorphous fumed 112945-52-5 Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male
• ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
• Polyethylene glycol 25322-68-3 Not Listed
• Titanium dioxide 13463-67-7 Not Listed
• Polymeric Initiator Proprietary Not Listed
• Polytetrafluoroethylene 9002-84-0 Not Listed
• Silica, amorphous fumed 112945-52-5 Not Listed

United States - Pennsylvania

Labor
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
• ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
• Polyethylene glycol 25322-68-3 Not Listed
• Titanium dioxide 13463-67-7 Not Listed
• Polymeric Initiator Proprietary Not Listed
• Polytetrafluoroethylene 9002-84-0 Not Listed
• Silica, amorphous fumed 112945-52-5 Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances
• ethoxylated Bisphenol A Dimethacrylate 41637-38-1 Not Listed
• Polyethylene glycol 25322-68-3 Not Listed
• Titanium dioxide 13463-67-7 Not Listed
• Polymeric Initiator Proprietary Not Listed
• Polytetrafluoroethylene 9002-84-0 Not Listed
• Silica, amorphous fumed 112945-52-5 Not Listed

15.2 Chemical Safety Assessment

• No Chemical Safety Assessment has been carried out.

15.3 Other Information

• WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Relevant Phrases (code & full text)

• H242 - Heating may cause a fire
• H312 - Harmful in contact with skin
• H314 - Causes severe skin burns and eye damage.
• H331 - Toxic if inhaled
• H373 - May cause damage to organs through prolonged or repeated exposure.
• H411 - Toxic to aquatic life with long lasting effects
• R7 - May cause fire.
• R21/22 - Harmful in contact with skin and if swallowed.
• R22 - Harmful if swallowed.
• R23 - Toxic by inhalation.
• R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R48/20/22 - Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R51 - Toxic to aquatic organisms.
R53 - May cause long-term adverse effects in the aquatic environment.

Last Revision Date
14/February/2014

Preparation Date
13/July/2012

Disclaimer/Statement of Liability
The information herein is given in good faith but no warranty, expressed or implied, is made.

Key to abbreviations
NDA = No Data Available