SAFETY DATA SHEET
FR6 SD | Part A (Resin)


1. Identification

Product identifier

Product name FR6 SD | Part A

Recommended use of the chemical and restrictions on use

Restriction on use Two component epoxy based adhesive. Resin.

Details of the supplier of the safety data sheet

Supplier UCAN Fastening Products

155 Champagne Drive, Unit 10

Toronto, Ontario, M3J 2C6

Tel.: 416-631-9400 | Fax: 416-631-9426 | Email: sales@ucanfast.com

Toll Free: CAD 1-800-268-1248 | USA 1-800-461-8226

Web www.ucanfast.com

Contact person Balwant K. Arjune | 416-631-9400 Ex. 252

Emergency telephone number

Emergency telephone CHEMTRAC 800-424-9300 (24 hr. Emergency)

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Skin Sens. 1 - H317

Label elements

Pictogram

Signal word Warning

Hazard statements H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.
FR6 SD | Part A (Resin)

Precautionary statements
P264 Wash contaminated skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302+P352 If on skin: Wash with plenty of water.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/ container in accordance with national regulations.

Contains
EPOXY RESIN (Number average MW <= 700 ), EPOXY PHENOL FORMALDEHYDE RESIN, REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYL)OXIRANE(1:2)

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>EPOXY RESIN (Number average MW &lt;= 700 )</th>
<th>50-80%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 25068-38-6</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EPOXY PHENOL FORMALDEHYDE RESIN</th>
<th>20-50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 9003-36-5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYL)OXIRANE(1:2)</th>
<th>10-20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 933999-84-9</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TALC</th>
<th>1-5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 14807-96-6</td>
<td></td>
</tr>
</tbody>
</table>

Composition comments
CAS 933999-84-9 = CAS 16096-31-4 (RoW) CAS 28064-14-4 = CAS 9003-36-5 (EU)

4. First-aid measures

Description of first aid measures

Inhalation
Remove affected person from source of contamination. Get medical attention if any discomfort continues.

Ingestion
DO NOT induce vomiting. Get medical attention immediately.

Skin Contact
Remove contaminated clothing immediately and wash skin with soap and water.

Eye contact
Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.

Most important symptoms and effects, both acute and delayed

Inhalation
May cause respiratory irritation.

Ingestion
May cause stomach pain or vomiting.

Skin contact
Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. May cause sensitisation by skin contact.

Eye contact
Irritating to eyes.

Indication of immediate medical attention and special treatment needed
FR6 SD | Part A (Resin)

Notes for the doctor
No specific recommendations. If in doubt, get medical attention promptly.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media
Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.

 Unsuitable extinguishing media
DO NOT use water if avoidable.

Special hazards arising from the substance or mixture
Specific hazards
No unusual fire or explosion hazards noted.

Hazardous combustion

products
Advice for firefighters

Protective actions during firefighting
No specific firefighting precautions known.

Special protective equipment for firefighters
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions
Wear protective clothing as described in Section 8 of this safety data sheet.

Environmental precautions
Avoid release to the environment.

Methods and material for containment and cleaning up

Methods for cleaning up
Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

Reference to other sections
For personal protection, see Section 8. Collect and dispose of spillage as indicated in Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions
Avoid contact with eyes. Avoid contact with skin.

Advice on general occupational hygiene
Do not eat, drink or smoke when using this product. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

Conditions for safe storage, including any incompatibilities

Storage precautions
Keep away from food, drink and animal feeding stuffs. Keep container tightly sealed when not in use.

Specific end uses(s)

Specific end use(s)
The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits
FR6 SD | Part A (Resin)

TALC

Long-term exposure limit (8-hour TWA): OSHA 20 particles/cc respirable dust
Long-term exposure limit (8-hour TWA): ACGIH 0.1 f/cc containing asbestos fibers

A1

Long-term exposure limit (8-hour TWA): ACGIH 2 mg/m³ respirable fraction

A4

OSHA = Occupational Safety and Health Administration.
ACGIH = American Conference of Governmental Industrial Hygienists.
A1 = Confirmed Human Carcinogen.
A4 = Not Classifiable as a Human Carcinogen.

Exposure controls

Protective equipment

Appropriate engineering controls

Eye/face protection

Wear eye protection.

Hand protection

Wear protective gloves made of the following material: Nitrile rubber.

Hygiene measures

Provide eyewash station. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated.

Respiratory protection

Not relevant.

Environmental exposure controls

Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Liquid

Color

White/off-white.

Odor

Characteristic.

Odor threshold

Not determined.

pH

Not applicable.

Melting point

Not applicable.

Initial boiling point and range

>35°C @ 760 mm Hg

Flash point

>100°C Closed cup. Literature

Evaporation rate

No information available.

Evaporation factor

Not applicable.

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

Not applicable.

Other flammability

Not available.

Vapor pressure

<500 Pa @ °C
## FR6 SD | Part A (Resin)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value/Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor density</td>
<td>No information available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.2 - 1.3</td>
</tr>
<tr>
<td>Bulk density</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Solubility/ies</td>
<td>Insoluble in water</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available.</td>
</tr>
<tr>
<td>Explosive under the influence of a flame</td>
<td></td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Does not meet the criteria for classification as oxidizing.</td>
</tr>
</tbody>
</table>

### 10. Stability and reactivity

- **Stability**: Stable at normal ambient temperatures and when used as recommended.
- **Possibility of hazardous reactions**: The following materials may react with the product: Acids. Amides. Amines. Phenols, cresols.
- **Conditions to avoid**: Avoid contact with acids and alkalis.
- **Materials to avoid**: Acids. Amines. Amides.
- **Hazardous decomposition products**: Oxides of carbon. Oxides of nitrogen.

### 11. Toxicological information

#### Information on toxicological effects

- **Skin sensitization**
  - Sensitizing.

- **General information**: Contains epoxy constituents. See information supplied by the manufacturer.
- **Inhalation**: No specific health hazards known.
- **Ingestion**: No harmful effects expected from quantities likely to be ingested by accident.
- **Skin Contact**: Irritating to skin. May cause sensitisation by skin contact.
- **Eye contact**: May cause severe eye irritation.
- **Acute and chronic health hazards**: Irritating to skin. Irritating to eyes.

- **Route of exposure**: Skin and/or eye contact.
- **Medical Symptoms**: Skin irritation.
- **Medical considerations**: Skin disorders and allergies.
FR6 SD | Part A (Resin)

12. Ecological information

Persistence and degradability
Persistence and degradability  The product is not biodegradable.

Bioaccumulative potential
Bio-Accumulative Potential  No data available on bioaccumulation.
Partition coefficient  Not determined.

Mobility in soil
Mobility  The product is insoluble in water and will spread on the water surface. The product is non-volatile. Semi-mobile.

13. Disposal considerations

Waste treatment methods
Disposal methods  Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. Dispose of waste via a licensed waste disposal contractor.

14. Transport information

UN Number
UN No. (TDG)  3082
UN No. (IMDG)  3082
UN No. (ICAO)  3082
UN No. (DOT)  UN3082

UN proper shipping name
Proper shipping name (TDG)  ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW <= 700 ), EPOXY PHENOL FORMALDEHYDE RESIN)
Proper shipping name (IMDG)  ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW <= 700 ), EPOXY PHENOL FORMALDEHYDE RESIN)
Proper shipping name (ICAO)  ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW <= 700 ), EPOXY PHENOL FORMALDEHYDE RESIN)
Proper shipping name (DOT)  ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW <= 700 ), EPOXY PHENOL FORMALDEHYDE RESIN)

Transport hazard class(es)
DOT hazard class  9
DOT hazard label  9
TDG class  9
TDG label(s)  9
IMDG Class  9
ICAO class/division  9
FR6 SD | Part A (Resin)

Transport labels

DOT transport labels

Packing group
TDG Packing Group III
IMDG packing group III
ICAO packing group III
DOT packing group III

Environmental hazards
Environmentally Hazardous Substance

Special precautions for user
EmS F-A, S-F

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

15. Regulatory information

Guidance Workplace Exposure Limits EH40.

US Federal Regulations
SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)
None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities
None of the ingredients are listed or exempt.

SARA 313 Emission Reporting
None of the ingredients are listed or exempt.

CAA Accidental Release Prevention
None of the ingredients are listed or exempt.

FDA - Essential Chemical
None of the ingredients are listed or exempt.
FDA - Precursor Chemical
None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals
None of the ingredients are listed or exempt.

US State Regulations
California Proposition 65 Carcinogens and Reproductive Toxins
None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)
None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-II)
None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances
The following ingredients are listed or exempt:

TALC
Present.
1-5%

Massachusetts "Right To Know" List
The following ingredients are listed or exempt:

TALC
Present.
1-5%

Rhode Island "Right To Know" List
The following ingredients are listed or exempt:

TALC
Present.
1-5%

Minnesota "Right To Know" List
The following ingredients are listed or exempt:

TALC
Present.
1-5%

New Jersey "Right To Know" List
The following ingredients are listed or exempt:

TALC
Present.
1-5%

Pennsylvania "Right To Know" List
The following ingredients are listed or exempt:

TALC
Present.
1-5%

Inventories
# FR6 SD | Part A (Resin)

**Canada - DSL/NDSL**  
All the ingredients are listed or exempt.

**US - TSCA**  
All the ingredients are listed or exempt.

**US - TSCA 12(b) Export Notification**  
The following ingredients are listed:

*REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYL)OXIRANE(1:2)*

## 16. Other information

<table>
<thead>
<tr>
<th>Revision comments</th>
<th>NOTE: Lines within the margin indicate significant changes from the previous revision.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision date</td>
<td>14/03/2019</td>
</tr>
<tr>
<td>Version number</td>
<td>1.001</td>
</tr>
<tr>
<td>Supersedes date</td>
<td>23/03/2016</td>
</tr>
<tr>
<td>SDS No.</td>
<td>20364</td>
</tr>
</tbody>
</table>
| Hazard statements in full | H315 Causes skin irritation.  
                        | H317 May cause an allergic skin reaction.  
                        | H319 Causes serious eye irritation. |

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.
SAFETY DATA SHEET
FR6 SD | Part B (Hardener)


1. Identification

Product identifier
FR6 SD | Part B

Product name
FR6 SD | Part B

Recommended use of the chemical and restrictions on use

Restriction on use
Two component epoxy based adhesive. Hardener.

Details of the supplier of the safety data sheet

Supplier
UCAN Fastening Products
155 Champagne Drive, Unit 10
Toronto, Ontario, M3J 2C6
Tel.: 416-631-9400 | Fax: 416-631-9426 | Email: sales@ucanfast.com
Toll Free: CAD 1-800-268-1248 | USA 1-800-461-8226

Web
www.ucanfast.com

Contact person
Balwant K. Arjune | 416-631-9400 Ex. 252

Emergency telephone number

Emergency telephone
CHEMTRAC 800-424-9300 (24 hr. Emergency)

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards
Not Classified

Health hazards

Human health
Corrosive. Prolonged contact causes serious eye and tissue damage. Contains a substance/a group of substances which may damage fertility and the unborn child.

Environmental
The product contains a substance which may have hazardous effects on the environment.

Label elements

Pictogram

Signal word
Danger
FR6 SD | Part B (Hardener)

Hazard statements
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H361 Suspected of damaging fertility or the unborn child.
H372 Causes damage to organs (Respiratory tract) through prolonged or repeated exposure.

Precautionary statements
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
P302+P352 If on skin: Wash with plenty of water.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 Store locked up.
P501 Dispose of contents/ container in accordance with national regulations.

Contains
CRystalline Silica, Styrenated Phenol, 2-Piperazin-1-yIethylamine, 1,3-Cyclohexanebis(Methylamine), Salicylic Acid

3. Composition/Information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz Sand</td>
<td>14808-60-7</td>
<td>20-50%</td>
</tr>
<tr>
<td>Crystalline Silica</td>
<td>14808-60-7</td>
<td>20-50%</td>
</tr>
<tr>
<td>Styrenated Phenol</td>
<td>61788-44-1</td>
<td>10-20%</td>
</tr>
<tr>
<td>2-Piperazin-1-yIethylamine</td>
<td>140-31-8</td>
<td>5-10%</td>
</tr>
<tr>
<td>1,3-Cyclohexanebis(Methylamine)</td>
<td>2579-20-6</td>
<td>1-5%</td>
</tr>
<tr>
<td>Salicylic Acid</td>
<td>69-72-7</td>
<td>1-5%</td>
</tr>
<tr>
<td>BIS(Isopropyl)naphthalene</td>
<td>38640-62-9</td>
<td>&gt;0.5 &lt;1.0%</td>
</tr>
<tr>
<td>Diethylenetriamine</td>
<td>111-40-0</td>
<td>&lt;0.5%</td>
</tr>
<tr>
<td>Triethylenetetramine</td>
<td>112-24-3</td>
<td>&lt;0.5%</td>
</tr>
</tbody>
</table>

4. First-aid measures

Description of first aid measures
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>**FR6 SD</td>
<td>Part B (Hardener)**</td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>Remove affected person from source of contamination. Get medical attention if any discomfort continues.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>DO NOT induce vomiting. Get medical attention immediately.</td>
</tr>
<tr>
<td><strong>Skin Contact</strong></td>
<td>Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.</td>
</tr>
<tr>
<td><strong>Eye contact</strong></td>
<td>Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.</td>
</tr>
<tr>
<td><strong>Most important symptoms and effects, both acute and delayed</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Inhalation</strong></td>
<td>Irritation of nose, throat and airway.</td>
</tr>
<tr>
<td><strong>Ingestion</strong></td>
<td>May cause stomach pain or vomiting.</td>
</tr>
<tr>
<td><strong>Skin contact</strong></td>
<td>Burning pain and severe corrosive skin damage. Blistering may occur. Chemical burns.</td>
</tr>
<tr>
<td><strong>Eye contact</strong></td>
<td>May cause chemical eye burns. May cause blurred vision and serious eye damage.</td>
</tr>
<tr>
<td><strong>Indication of immediate medical attention and special treatment needed</strong></td>
<td>No specific recommendations. If in doubt, get medical attention promptly.</td>
</tr>
<tr>
<td><strong>5. Fire-fighting measures</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Extinguishing media</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Suitable extinguishing media</strong></td>
<td>Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.</td>
</tr>
<tr>
<td><strong>Unsuitable extinguishing media</strong></td>
<td>DO NOT use water if avoidable.</td>
</tr>
<tr>
<td><strong>Special hazards arising from the substance or mixture</strong></td>
<td>No unusual fire or explosion hazards noted.</td>
</tr>
<tr>
<td><strong>Specific hazards</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Hazardous combustion products</strong></td>
<td>Oxides of carbon. Oxides of nitrogen.</td>
</tr>
<tr>
<td><strong>Advice for firefighters</strong></td>
<td>No specific firefighting precautions known.</td>
</tr>
<tr>
<td><strong>Protective actions during firefighting</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Special protective equipment for firefighters</strong></td>
<td>Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.</td>
</tr>
<tr>
<td><strong>6. Accidental release measures</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Personal precautions, protective equipment and emergency procedures</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Personal precautions</strong></td>
<td>Wear protective clothing as described in Section 8 of this safety data sheet.</td>
</tr>
<tr>
<td><strong>Environmental precautions</strong></td>
<td>Collect and dispose of spillage as indicated in Section 13. Contain spillage with sand, earth or other suitable non-combustible material. Avoid discharge into drains or watercourses or onto the ground.</td>
</tr>
<tr>
<td><strong>Methods and material for containment and cleaning up</strong></td>
<td>Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.</td>
</tr>
</tbody>
</table>
FR6 SD | Part B (Hardener)

Reference to other sections
For personal protection, see Section 8. Collect and dispose of spillage as indicated in Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions
Avoid contact with skin. Avoid contact with eyes. Do not empty into drains.

Advice on general
Do not eat, drink or smoke when using this product. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

Occupational hygiene

Conditions for safe storage, including any incompatibilities

Storage precautions
Keep away from food and drink. Keep container closed when not in use.

Specific end uses(s)
The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

QUARTZ SAND
Long-term exposure limit (8-hour TWA): OSHA 0.05 mg/m³ respirable dust
Long-term exposure limit (8-hour TWA): ACGIH 0.025 mg/m³ respirable fraction
A2

CRYSTALLINE SILICA
Long-term exposure limit (8-hour TWA): OSHA 0.05 mg/m³ respirable dust
Long-term exposure limit (8-hour TWA): ACGIH 0.025 mg/m³ respirable fraction
A2

DIETHYLENetriAMINE
Long-term exposure limit (8-hour TWA): ACGIH 1 ppm 4.2 mg/m³
Sk
OSHA = Occupational Safety and Health Administration.
ACGIH = American Conference of Governmental Industrial Hygienists.
Sk = Danger of cutaneous absorption.
A2 = Suspected Human Carcinogen.

Exposure controls

Protective equipment

Appropriate engineering controls
Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection
The following protection should be worn: Tight-fitting safety glasses. Contact lenses should not be worn when working with this chemical.

Hand protection
Wear protective gloves made of the following material: Nitrile rubber.

Other skin and body protection
Avoid contact with skin. Wear appropriate clothing to prevent repeated or prolonged skin contact.
FR6 SD | Part B (Hardener)

**Hygiene measures**
Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Use engineering controls to reduce air contamination to permissible exposure level.

**Respiratory protection**
If ventilation is inadequate, suitable respiratory protection must be worn.

**Environmental exposure controls**
Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

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### 9. Physical and chemical properties

#### Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Brownish</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Characteristic. Amine.</td>
</tr>
<tr>
<td><strong>Odor threshold</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Melting point</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Initial boiling point and range</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>&gt;100°C Closed cup. Literature</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Evaporation factor</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Other flammability</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Vapor density</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>1.75 - 1.85</td>
</tr>
<tr>
<td><strong>Bulk density</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Solubility(ies)</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Partition coefficient</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Decomposition Temperature</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>&gt; 60 S ISO2431</td>
</tr>
<tr>
<td><strong>Explosive properties</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Explosive under the influence of a flame</strong></td>
<td>Not considered to be explosive.</td>
</tr>
<tr>
<td><strong>Oxidizing properties</strong></td>
<td>Does not meet the criteria for classification as oxidizing.</td>
</tr>
</tbody>
</table>

---

### 10. Stability and reactivity
FR6 SD | Part B (Hardener)

Reactivity
The following materials may react with the product: Acids. Epoxides. Oxidizing agents. Peroxides.

Stability
Stable at normal ambient temperatures and when used as recommended.

Possibility of hazardous reactions
The following materials may react with the product: Acids. Epoxides. Oxidizing agents. Peroxides.

Conditions to avoid
Stable. However, may decompose if heated.

Materials to avoid

Hazardous decomposition products

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral
ATE oral (mg/kg)  3,344.22

Acute toxicity - dermal
ATE dermal (mg/kg)  3,918.55

Skin corrosion/irritation
Human skin model test  «328» «329» «330» «84»

Skin sensitization
Sensitizing.

Reproductive toxicity

Reproductive toxicity - fertility Suspected of damaging fertility.

Inhalation
Vapor may irritate respiratory system/lungs.

Ingestion
May cause stomach pain or vomiting.

Skin Contact
May cause sensitisation by skin contact. May cause serious chemical burns to the skin.

Eye contact
Risk of serious damage to eyes. May cause chemical eye burns.

Acute and chronic health hazards
May cause sensitisation by skin contact. Causes severe burns.

Route of exposure
Skin and/or eye contact Inhalation

Target Organs
No specific target organs known.

Medical Symptoms
Symptoms following overexposure may include the following: Chemical burns.

Medical considerations
Splash in eye requires examination by eye specialist.

12. Ecological information

Persistence and degradability
Persistence and degradability There are no data on the degradability of this product.

Bioaccumulative potential
No data available on bioaccumulation.
FR6 SD | Part B (Hardener)

Partition coefficient
Not determined.

Mobility in soil

Mobility
Mobile. The product is miscible with water and may spread in water systems.

13. Disposal considerations

Waste treatment methods

General information
Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

Disposal methods
Dispose of waste via a licensed waste disposal contractor.

14. Transport information

UN Number
UN No. (TDG) 2735
UN No. (IMDG) 2735
UN No. (ICAO) 2735
UN No. (DOT) UN2735

UN proper shipping name

Proper shipping name (TDG) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 1,3-CYCLOHEXANEBIS(METHYLAMINE), 2-PIPERAZIN-1-YLETHYLAMINE)

Proper shipping name (IMDG) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 1,3-CYCLOHEXANEBIS(METHYLAMINE), 2-PIPERAZIN-1-YLETHYLAMINE)

Proper shipping name (ICAO) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 1,3-CYCLOHEXANEBIS(METHYLAMINE), 2-PIPERAZIN-1-YLETHYLAMINE)

Proper shipping name (DOT) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 1,3-CYCLOHEXANEBIS(METHYLAMINE), 2-PIPERAZIN-1-YLETHYLAMINE)

Transport hazard class(es)

DOT hazard class 8
DOT hazard label 8
TDG class 8
TDG label(s) 8
IMDG Class 8
ICAO class/division 8

Transport labels

DOT transport labels

Packing group

Revision date: 14/03/2019 Supersedes date: 23/03/2016
FR6 SD | Part B (Hardener)

TDG Packing Group II
IMDG packing group II
ICAO packing group II
DOT packing group II

Environmental hazards
Environmentally Hazardous Substance
No.

Special precautions for user
EmS F-A, S-B

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

15. Regulatory information

Guidance Workplace Exposure Limits EH40.

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)
None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities
None of the ingredients are listed or exempt.

SARA 313 Emission Reporting
None of the ingredients are listed or exempt.

CAA Accidental Release Prevention
None of the ingredients are listed or exempt.

FDA - Essential Chemical
None of the ingredients are listed or exempt.

FDA - Precursor Chemical
None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals
None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins
None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)
None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-II)
None of the ingredients are listed or exempt.
California Directors List of Hazardous Substances
None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List
The following ingredients are listed or exempt:

CRYSTALLINE SILICA  
Present.  
20-50%

QUARTZ SAND  
Present.  
20-50%

2-PIPERAZIN-1-YLETHYLAMINE  
Present.  
5-10%

Rhode Island "Right To Know" List
The following ingredients are listed or exempt:

CRYSTALLINE SILICA  
Present.  
20-50%

QUARTZ SAND  
Present.  
20-50%

DIETHYLENETRIAMINE  
Present.  
<0.5%

Minnesota "Right To Know" List
The following ingredients are listed or exempt:

CRYSTALLINE SILICA  
Present.  
20-50%

QUARTZ SAND  
Present.  
20-50%

DIETHYLENETRIAMINE  
Present.  
<0.5%

New Jersey "Right To Know" List
The following ingredients are listed or exempt:

CRYSTALLINE SILICA  
Present.  
20-50%

QUARTZ SAND  
Present.  
20-50%

2-PIPERAZIN-1-YLETHYLAMINE  
Present.  
5-10%
Pennsylvania “Right To Know” List

The following ingredients are listed or exempt:

**CRYSTALLINE SILICA**
Present.
20-50%

**QUARTZ SAND**
Present.
20-50%

**TRIETHYLENETETRAMINE**
Present.
<0.5%

**2-PIPERAZIN-1-YLETHYLAMINE**
Present.
5-10%

**DIETHYLENETRIAMINE**
Present.
<0.5%

**Inventories**

**Canada - DSL/NDSL**
All the ingredients are listed or exempt.

**US - TSCA**
All the ingredients are listed or exempt.

**US - TSCA 12(b) Export Notification**
None of the ingredients are listed or exempt

### 16. Other information

**Revision comments**
NOTE: Lines within the margin indicate significant changes from the previous revision.

**Revision date**
14/03/2019

**Version number**
1.001

**Supersedes date**
23/03/2016

**SDS No.**
20365

**Hazard statements in full**
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H361 Suspected of damaging fertility or the unborn child.
H372 Causes damage to organs (Respiratory tract) through prolonged or repeated exposure.