Safety Data Sheet

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Document group: 18-9069-8 Version number: 8.01
Revision date: 20/02/2019 Supersedes date: 21/10/2016
Transportation version number: 7.00 (01/06/2019)

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier
Scotch-Weld EC-9323-150 B/A

Product Identification Numbers
FS-9100-5471-7 FS-9100-5472-5
7000080441 7000080440

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Adhesive

1.3. Details of the supplier of the safety data sheet
Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
Telephone: +44 (0)1344 858 000
E Mail: tox.uk@mmm.com
Website: www.3M.com/uk

1.4. Emergency telephone number
+44 (0)1344 858 000

This product is a kit or a multipart product which consists of multiple, independently packaged components. A Safety Data Sheet for each of these components is included. Please do not separate the component Safety Data Sheets from this cover page. The document numbers of the MSDSs for components of this product are:

18-5967-7, 11-3739-7

TRANSPORTATION INFORMATION

FS-9100-5471-7

Component 1
ADR/RID: UN3259, AMINES, SOLID, CORROSIVE, N.O.S., (3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)), 8., II , (E), ADR Classification Code: C8.
IMDG-CODE: UN3259, AMINES, SOLID, CORROSIVE, N.O.S., (3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)), 8., II, IMDG-Code segregation code: 18 - ALKALIS, EMS: FA, SB.
ICAO/IATA: UN3259, AMINES, SOLID, CORROSIVE, N.O.S., (3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)), 8., II.

Component 2
ADR/RID: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (EPOXY RESIN), 9, III, (-), ENVIRONMENTALLY HAZARDOUS, ADR Classification Code: M7.
ICAO/IATA: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (EPOXY RESIN), 9, III, fish and tree marking may be required (> 5kg/l).

FS-9100-5472-5

Component 1
ADR/RID: UN3259, AMINES, SOLID, CORROSIVE, N.O.S., LIMITED QUANTITY, (3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)), 8., II, (E), ADR Classification Code: C8.
IMDG-CODE: UN3259, AMINES, SOLID, CORROSIVE, N.O.S., (3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)), 8., II, IMDG-Code segregation code: 18 - ALKALIS, LIMITED QUANTITY, EMS: FA, SB.
ICAO/IATA: UN3259, AMINES, SOLID, CORROSIVE, N.O.S., (3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)), 8., II.

Component 2
ADR/RID: UN3077, NOT RESTRICTED AS PER SPECIAL PROVISION 375, ENVIRONMENTALLY HAZARDOUS SUBSTANCE EXEMPTION, (EPOXY RESIN), III, --.
IMDG-CODE: UN3077, NOT RESTRICTED AS PER IMDG CODE 2.10.2.7, MARINE POLLUTANT EXCEPTION, (EPOXY RESIN), III, IMDG-Code segregation code: NONE, EMS: --.
ICAO/IATA: UN3077, NOT RESTRICTED AS PER SPECIAL PROVISION A197, ENVIRONMENTALLY HAZARDOUS SUBSTANCE EXCEPTION, (EPOXY RESIN), III.

KIT LABEL

2.1. Classification of the substance or mixture
CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:
Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318
Skin Corrosion/Irritation, Category 1B - Skin Corr. 1B; H314
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411

For full text of H phrases, see Section 16.

2.2. Label elements
CLP REGULATION (EC) No 1272/2008

SIGNAL WORD
DANGER.

Symbols:
GHS05 (Corrosion) | GHS07 (Exclamation mark) | GHS09 (Environment) |

Pictograms
Contains:
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane; 3,3'-
Oxybis(ethyleneoxy)bis(propylamine); Tris(2,4,6-dimethylaminomonomethyl)phenol

HAZARD STATEMENTS:
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS
Prevention:
P260G Do not breathe vapours or dust.
P280D Wear protective gloves, protective clothing, and eye/face protection.

Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE or doctor/physician.

Disposal:
P501 Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

Refer to Safety Data Sheet for component % unknown values (www.3M.com/msds).

Revision information:
Kit: Component document group number(s) information was modified.
Label: CLP Ingredients - kit components information was added.
Section 01: SAP Material Numbers information was added.
Label: CLP Precautionary - Response information was modified.
Safety Data Sheet

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Document group: 18-5967-7
Revision date: 16/04/2020
Supersedes date: 11/09/2017
Transportation version number: 1.00 (12/10/2011)

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (EC) 1907/2006 and its modifications.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Scotch-Weld(TM) EC-9323-150 B/A: Part B

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses
Adhesive

1.3. Details of the supplier of the safety data sheet
Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
Telephone: +44 (0)1344 858 000
E Mail: tox.uk@mmm.com
Website: www.3M.com/uk

1.4. Emergency telephone number
+44 (0)1344 858 000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
CLP REGULATION (EC) No 1272/2008

CLASSIFICATION:
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319
Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315
Skin Sensitization, Category 1 - Skin Sens. 1; H317
Hazardous to the Aquatic Environment (Chronic), Category 2 - Aquatic Chronic 2; H411

For full text of H phrases, see Section 16.

2.2. Label elements
CLP REGULATION (EC) No 1272/2008

SIGNAL WORD
WARNING.
Symbols:
GHS07 (Exclamation mark) |GHS09 (Environment) |

Pictograms

Ingredients:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Nbr</th>
<th>EC No.</th>
<th>% by Wt</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>25068-38-6</td>
<td>500-033-5</td>
<td>60 - 90</td>
<td>Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 2, H411</td>
</tr>
</tbody>
</table>

HAZARD STATEMENTS:

H319 Causes serious eye irritation.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:  
P280E Wear protective gloves.
P273 Avoid release to the environment.

Response:  
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.

Disposal:  
P501 Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

16% of the mixture consists of components of unknown acute oral toxicity.
Contains 18% of components with unknown hazards to the aquatic environment.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Nbr</th>
<th>EC No.</th>
<th>REACH Registration No.</th>
<th>% by Wt</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>25068-38-6</td>
<td>500-033-5</td>
<td>60 - 90</td>
<td>60 - 90</td>
<td>Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 2, H411</td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

4.1. Description of first aid measures

**Inhalation**
Remove person to fresh air. If you feel unwell, get medical attention.

**Skin contact**
Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

**Eye contact**
Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

**If swallowed**
Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
See Section 11.1 Information on toxicological effects

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Extinguishing media
In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture
None inherent in this product.

**Hazardous Decomposition or By-Products**

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aldehydes</td>
<td>During combustion.</td>
</tr>
<tr>
<td>Carbon monoxide</td>
<td>During combustion.</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>During combustion.</td>
</tr>
</tbody>
</table>

5.3. Advice for fire-fighters
Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections
Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities
Store away from heat. Store away from acids. Store away from oxidising agents. Store away from amines.

7.3. Specific end use(s)
See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Nbr</th>
<th>Agency</th>
<th>Limit type</th>
<th>Additional comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limestone</td>
<td>471-34-1</td>
<td>UK HSC</td>
<td>TWA(as inhalable dust):10 mg/m3; TWA(as respirable dust):4 mg/m3</td>
<td></td>
</tr>
<tr>
<td>Silicon dioxide</td>
<td>67762-90-7</td>
<td>UK HSC</td>
<td>TWA(as inhalable dust):6 mg/m3; TWA(as respirable dust):2.4 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

UK HSC : UK Health and Safety Commission
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

Biological limit values
No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.
Recommended monitoring procedures: Information on recommended monitoring procedures can be obtained from UK HSC

8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment. Provide appropriate local exhaust ventilation for cutting, grinding, sanding or machining.

8.2.2. Personal protective equipment (PPE)

Eye/face protection
Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:
Indirect vented goggles.

Applicable Norms/Standards
Use eye protection conforming to EN 166

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
Gloves made from the following material(s) are recommended:

<table>
<thead>
<tr>
<th>Material</th>
<th>Thickness (mm)</th>
<th>Breakthrough Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrile rubber.</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Applicable Norms/Standards
Use gloves tested to EN 374

If this product is used in a manner that presents a higher potential for exposure (eg. spraying, high splash potential etc.), then use of protective coveralls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection
An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

Applicable Norms/Standards
Use a respirator conforming to EN 140 or EN 136: filter types A & P

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
Appearance
  Physical state          Solid.
  Colour                  Off-White

Specific Physical Form:
  Odor              Epoxy
  Odour threshold  No data available.
  pH               Not applicable.
  Boiling point/boiling range  No data available.
  Melting point  Not applicable.
  Flammability (solid, gas)  Not classified
  Explosive properties  Not classified
  Oxidising properties  Not classified
  Flash point    150 °C
  Autoignition temperature  No data available.
  Flammable Limits(LEL)  No data available.
  Flammable Limits(UEL)  No data available.
  Vapour pressure  No data available.
  Relative density  1.16 - 1.2  [Ref Std:WATER=1]
  Water solubility  Nil
  Solubility- non-water  No data available.
  Partition coefficient: n-octanol/water  No data available.
  Evaporation rate  No data available.
  Vapour density  No data available.
  Decomposition temperature  No data available.
  Viscosity  1,000 - 2,000 Pa-s [@ 23 °C ]
  Density          1.17 g/ml

9.2. Other information
  EU Volatile Organic Compounds  No data available.
  Percent volatile  No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.4 Conditions to avoid
Heat.
Heat is generated during cure. Do not cure a mass larger than 50 grams in a confined space to prevent a premature exothermic reaction with production of intense heat and smoke.
Sparks and/or flames.

10.5 Incompatible materials
Amines.
Strong acids.
Strong oxidising agents.
10.6 Hazardous decomposition products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known.</td>
<td></td>
</tr>
</tbody>
</table>

Refer to section 5.2 for hazardous decomposition products during combustion.

**SECTION 11: Toxicological information**

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

11.1 Information on Toxicological effects

**Signs and Symptoms of Exposure**

Based on test data and/or information on the components, this material may produce the following health effects:

**Inhalation**
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Vapours from heated material may cause irritation of the respiratory system: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, nose and throat pain.

**Skin contact**
Mild Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness. Prolonged or repeated exposure may cause:

- Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

**Eye contact**
Moderate eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. Vapours from heated material may cause eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

**Ingestion**
Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea.

**Toxicological Data**
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

### Acute Toxicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall product</td>
<td>Dermal</td>
<td>No data available; calculated ATE &gt;5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Overall product</td>
<td>Ingestion</td>
<td>No data available; calculated ATE &gt;5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>Dermal</td>
<td>Rat</td>
<td>LD50 &gt; 1,600 mg/kg</td>
</tr>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt; 1,000 mg/kg</td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>Dermal</td>
<td>Rat</td>
<td>LD50 &gt; 2,000 mg/kg</td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>Inhalation-Dust/Mist (4 hours)</td>
<td>Rat</td>
<td>LC50 3 mg/l</td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 6,450 mg/kg</td>
</tr>
<tr>
<td>Siloxanes and Silicones, di-Me, reaction products with silica</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD50 &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Siloxanes and Silicones, di-Me, reaction products with silica</td>
<td>Inhalation-Dust/Mist (4 hours)</td>
<td>Rat</td>
<td>LC50 &gt; 0.691 mg/l</td>
</tr>
<tr>
<td>Siloxanes and Silicones, di-Me, reaction products with silica</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 &gt; 5,110 mg/kg</td>
</tr>
</tbody>
</table>
ATE = acute toxicity estimate

### Skin Corrosion/Irritation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>Rabbit</td>
<td>Mild irritant</td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Siloxanes and Silicones, di-Me, reaction products with silica</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
</tbody>
</table>

### Serious Eye Damage/Irritation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>Rabbit</td>
<td>Moderate irritant</td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
<tr>
<td>Siloxanes and Silicones, di-Me, reaction products with silica</td>
<td>Rabbit</td>
<td>No significant irritation</td>
</tr>
</tbody>
</table>

### Skin Sensitisation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>Human and animal</td>
<td>Sensitising</td>
</tr>
<tr>
<td>Siloxanes and Silicones, di-Me, reaction products with silica</td>
<td>Human and animal</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

### Respiratory Sensitisation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>Human</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

### Germ Cell Mutagenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>In vivo</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>In Vitro</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>Siloxanes and Silicones, di-Me, reaction products with silica</td>
<td>In Vitro</td>
<td>Not mutagenic</td>
</tr>
</tbody>
</table>

### Carcinogenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>Dermal</td>
<td>Mouse</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>Siloxanes and Silicones, di-Me, reaction products with silica</td>
<td>Not specified</td>
<td>Mouse</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
</tbody>
</table>

### Reproductive Toxicity

### Reproductive and/or Developmental Effects

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
<th>Species</th>
<th>Test result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>Ingestion</td>
<td>Not classified for female reproduction</td>
<td>Rat</td>
<td>NOAEL 750 mg/kg/day</td>
<td>2 generation</td>
</tr>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>Ingestion</td>
<td>Not classified for male reproduction</td>
<td>Rat</td>
<td>NOAEL 750 mg/kg/day</td>
<td>2 generation</td>
</tr>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>Dermal</td>
<td>Not classified for development</td>
<td>Rabbit</td>
<td>NOAEL 300 mg/kg/day</td>
<td>during organogenesis</td>
</tr>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>Ingestion</td>
<td>Not classified for development</td>
<td>Rat</td>
<td>NOAEL 750 mg/kg/day</td>
<td>2 generation</td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>Ingestion</td>
<td>Not classified for development</td>
<td>Rat</td>
<td>NOAEL 625 mg/kg/day</td>
<td>premating &amp; during gestation</td>
</tr>
</tbody>
</table>
Siloxanes and Silicones, di-Me, reaction products with silica
Ingestion Not classified for female reproduction Rat NOAEL 509 mg/kg/day 1 generation

Siloxanes and Silicones, di-Me, reaction products with silica
Ingestion Not classified for male reproduction Rat NOAEL 497 mg/kg/day 1 generation

Siloxanes and Silicones, di-Me, reaction products with silica
Ingestion Not classified for development Rat NOAEL 1,350 mg/kg/day during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target Organ(s)</th>
<th>Value</th>
<th>Species</th>
<th>Test result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate</td>
<td>Inhalation</td>
<td>respiratory system</td>
<td>Not classified</td>
<td>Rat</td>
<td>NOAEL 0.812 mg/l</td>
<td>90 minutes</td>
</tr>
</tbody>
</table>

Specific Target Organ Toxicity - repeated exposure

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target Organ(s)</th>
<th>Value</th>
<th>Species</th>
<th>Test result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-</td>
<td>Dermal</td>
<td>liver</td>
<td>Not classified</td>
<td>Rat</td>
<td>NOAEL 1,000 mg/kg/day</td>
<td>2 years</td>
</tr>
<tr>
<td>(epichlorhydrin)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>reaction product: bisphenol-A-</td>
<td>Dermal</td>
<td>nervous system</td>
<td>Not classified</td>
<td>Rat</td>
<td>NOAEL 1,000 mg/kg/day</td>
<td>13 weeks</td>
</tr>
<tr>
<td>(epichlorhydrin)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>reaction product: bisphenol-A-</td>
<td>Ingestion</td>
<td>auditory system</td>
<td>heart</td>
<td>endocrine system</td>
<td>hematopoietic system</td>
<td>liver</td>
</tr>
<tr>
<td>(epichlorhydrin)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>Inhalation</td>
<td>respiratory system</td>
<td>Not classified</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td>occupational exposure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siloxanes and Silicones,</td>
<td>Inhalation</td>
<td>respiratory system</td>
<td>Not classified</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td>occupational exposure</td>
</tr>
<tr>
<td>di-Me, reaction products with silica</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Aspiration Hazard
For the component/components, either no data is currently available or the data is not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity
No product test data available.
reaction product: bisphenol-A-(epichlorhydrin)  | 25068-38-6 | Green Algae | Experimental | 72 hours | EC50 | >11 mg/l
reaction product: bisphenol-A-(epichlorhydrin)  | 25068-38-6 | Green Algae | Experimental | 72 hours | NOEC | 4.2 mg/l
reaction product: bisphenol-A-(epichlorhydrin)  | 25068-38-6 | Water flea  | Experimental | 21 days  | NOEC | 0.3 mg/l
Calcium Carbonate                             | 471-34-1 | Green algae | Experimental | 72 hours | EC50 | >100 mg/l
Calcium Carbonate                             | 471-34-1 | Rainbow trout | Experimental | 96 hours | LC50 | >100 mg/l
Calcium Carbonate                             | 471-34-1 | Water flea  | Experimental | 48 hours | EC50 | >100 mg/l
Calcium Carbonate                             | 471-34-1 | Green algae | Experimental | 72 hours | Effect Concentration 10% | >100 mg/l
Siloxanes and Silicones, di-Me, reaction products with silica | 67762-90-7 | Data not available or insufficient for classification

### 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Nbr</th>
<th>Test type</th>
<th>Duration</th>
<th>Study Type</th>
<th>Test result</th>
<th>Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>25068-38-6</td>
<td>Experimental Hydrolysis</td>
<td>Hydrolytic half-life</td>
<td>117 hours (t 1/2)</td>
<td>Other methods</td>
<td></td>
</tr>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>25068-38-6</td>
<td>Experimental Biodegradation</td>
<td>28 days</td>
<td>BOD</td>
<td>5 %BOD/COD</td>
<td>OECD 301F - Manometric respirometry</td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>471-34-1</td>
<td>Data not available or insufficient</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siloxanes and Silicones, di-Me, reaction products with silica</td>
<td>67762-90-7</td>
<td>Data not available or insufficient</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 12.3 : Bioaccumulative potential

<table>
<thead>
<tr>
<th>Material</th>
<th>Cas No.</th>
<th>Test type</th>
<th>Duration</th>
<th>Study Type</th>
<th>Test result</th>
<th>Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>reaction product: bisphenol-A-(epichlorhydrin)</td>
<td>25068-38-6</td>
<td>Experimental Bioconcentration</td>
<td>Log Kow</td>
<td>3.242</td>
<td>Other methods</td>
<td></td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>471-34-1</td>
<td>Data not available or insufficient for classification</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Siloxanes and Silicones, di-Me, reaction products with silica</td>
<td>67762-90-7</td>
<td>Data not available or insufficient for classification</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### 12.4. Mobility in soil

Please contact manufacturer for more details

### 12.5. Results of the PBT and vPvB assessment

This material does not contain any substances that are assessed to be a PBT or vPvB

### 12.6. Other adverse effects

No information available.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.
Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

**EU waste code (product as sold)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>08 04 09*</td>
<td>Waste adhesives and sealants containing organic solvents or other dangerous substances</td>
</tr>
<tr>
<td>20 01 27*</td>
<td>Paint, inks, adhesives and resins containing dangerous substances</td>
</tr>
</tbody>
</table>

**SECTION 14: Transportation information**

Exemption: For vessels containing a net quantity of 5 l or a net mass of 5 kg or less per single or inner packaging, special provision 375 (ADR), exemption per 2.10.2.7 (IMDG) or special provision A197 (IATA) may be applied, if applicable ADR: UN3082; Environmentally Hazardous Substance, Liquid, N.O.S (Epoxy Resin); 9; III; (-); M7. IATA: UN3082; Environmentally Hazardous Substance, Liquid, N.O.S (Epoxy Resin); 9; III. IMDG: UN3082; Environmentally Hazardous Substance, Liquid, N.O.S (Epoxy Resin); 9; III; Marine Pollutant (Epoxy resin); FA, SF.

**SECTION 15: Regulatory information**

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

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this mixture. Chemical safety assessments for the contained substances may have been carried out by the registrants of the substances in accordance with Regulation (EC) No 1907/2006, as amended.

**SECTION 16: Other information**

List of relevant H statements

<table>
<thead>
<tr>
<th>H Statement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H411</td>
<td>Toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

Revision information:

CLP: Ingredient table information was modified.
Label: CLP Percent Unknown information was modified.
Section 3: Composition/Information of ingredients table information was modified.
Section 5: Fire - Advice for fire fighters information information was modified.
Section 5: Hazardous combustion products table information was modified.
Section 09: Color information was added.
Section 09: Odor information was added.
Sections 3 and 9: Odour, colour, grade information information was deleted.
Section 11: Acute Toxicity table information was modified.
Section 11: Carcinogenicity Table information was modified.
Section 11: Germ Cell Mutagenicity Table information was modified.
Section 11: Reproductive and/or Developmental Effects text information was deleted.
Section 11: Reproductive Toxicity Table information was modified.
Section 11: Respiratory Sensitization Table information was modified.
Section 11: Serious Eye Damage/Irritation Table information was modified.
Section 11: Skin Corrosion/Irritation Table information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Target Organs - Repeated Table information was modified.
Section 12: Component ecotoxicity information information was modified.
Section 12: No PBT/vPvB information available warning information was modified.
Section 12: Persistence and Degradability information information was modified.
Section 12: Biocumulative potential information information was modified.
Section 13: 13.1. Waste disposal note information was modified.
Section 14: Transportation classification information was modified.
Section 15: Chemical Safety Assessment information was modified.
Section 15: Regulations - Inventories information was deleted.
Section 16: UK disclaimer information was deleted.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into the European Union, you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.

3M United Kingdom MSDSs are available at www.3M.com/uk
### SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
SCOTCH-WELD(TM) EC-9323-150 B/A: Part A

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Adhesive

1.3. Details of the supplier of the safety data sheet
- **Address:** 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.
- **Telephone:** +44 (0)1344 858 000
- **E Mail:** tox.uk@mmm.com
- **Website:** www.3M.com/uk

1.4. Emergency telephone number
+44 (0)1344 858 000

### SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
CLP REGULATION (EC) No 1272/2008

**CLASSIFICATION:**
- Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318
- Skin Corrosion/Irritation, Category 1B - Skin Corr. 1B; H314
- Skin Sensitization, Category 1 - Skin Sens. 1; H317

For full text of H phrases, see Section 16.

2.2. Label elements
CLP REGULATION (EC) No 1272/2008

**SIGNAL WORD**
DANGER.
Symbols:
GHS05 (Corrosion) | GHS07 (Exclamation mark) |

Pictograms

Ingredients:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Nbr</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,3'-Oxybis(ethyleneoxy)bis(propylamine)</td>
<td>4246-51-9</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol</td>
<td>90-72-2</td>
</tr>
</tbody>
</table>


% by Wt: 60 - 90 7 - 13

HAZARD STATEMENTS:
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.

PRECAUTIONARY STATEMENTS

Prevention:
P260G Do not breathe vapours or dust.
P280D Wear protective gloves, protective clothing, and eye/face protection.

Response:
P303 + P361 + P353A IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE or doctor/physician.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

Contains 2% of components with unknown hazards to the aquatic environment.

2.3. Other hazards

May cause chemical gastrointestinal burns.

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Nbr</th>
<th>EC No.</th>
<th>REACH Registration No.</th>
<th>% by Wt</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,3'-Oxybis(ethyleneoxy)bis(propylamine)</td>
<td>4246-51-9</td>
<td>224-207-2</td>
<td>01-2119963377-26</td>
<td>60 - 90</td>
<td>Skin Sens. 1, H317 Skin Corr. 1B, H314</td>
</tr>
<tr>
<td>Synthetic amorphous silica, fumed, crystalline-free</td>
<td>112945-52-5</td>
<td>202-013-9</td>
<td>01-2119379499-16</td>
<td>7 - 13</td>
<td>Substance with a Community level exposure limit in the workplace</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol</td>
<td>90-72-2</td>
<td>202-013-9</td>
<td>01-2119560597-27</td>
<td>7 - 13</td>
<td>Acute Tox. 4, H302 Skin Corr. 1C, H314; Eye Dam. 1, H318</td>
</tr>
<tr>
<td>Glass, oxide, chemicals</td>
<td>65997-17-3</td>
<td>266-046-0</td>
<td></td>
<td>1 - 5</td>
<td>Substance with a</td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation
Remove person to fresh air. If you feel unwell, get medical attention.

Skin contact
Immediately flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

Eye contact
Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

If swallowed
Rinse mouth. Do not induce vomiting. Get immediate medical attention.

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

See Section 11.1 Information on toxicological effects

4.3. Indication of any immediate medical attention and special treatment required

Not applicable

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

In case of fire: Use a fire fighting agent suitable for ordinary combustible material such as water or foam to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon monoxide</td>
<td>During combustion.</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>During combustion.</td>
</tr>
</tbody>
</table>

5.3. Advice for fire-fighters

No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation
to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Collect as much of the spilled material as possible. Place in a metal container approved for use in transportation by appropriate authorities. The container must be lined with polyethylene plastic or contain a plastic drum liner made of polyethylene. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections
Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities
Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidising agents.

7.3. Specific end use(s)
See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits
If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Nbr</th>
<th>Agency</th>
<th>Limit type</th>
<th>Additional comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon dioxide</td>
<td>112945-52-5</td>
<td>UK HSC</td>
<td>TWA(as inhalable dust):6 mg/m³; TWA(as respirable dust):2.4 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Glass, oxide, chemicals</td>
<td>65997-17-3</td>
<td>UK HSC</td>
<td>TWA(as fiber):5 mg/m³(1 fibers/ml)</td>
<td></td>
</tr>
</tbody>
</table>

UK HSC : UK Health and Safety Commission
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

Biological limit values
No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

Derived no effect level (DNEL)

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Degradation Product</th>
<th>Population</th>
<th>Human exposure pattern</th>
<th>DNEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4,6-</td>
<td>2,4,6-</td>
<td>Worker</td>
<td>Inhalation, Long-term exposure (8 hours), Systemic effects</td>
<td>0.31 mg/m³</td>
</tr>
<tr>
<td>Tris(dimethylaminomethyl)</td>
<td>Tris(dimethylaminomethyl)phenol</td>
<td>Worker</td>
<td>Dermal, Long-term</td>
<td>8.3 mg/kg bw/d</td>
</tr>
</tbody>
</table>
### Oxybis(ethyleneoxy)bis(propylamine)

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Degradation Product</th>
<th>Compartment</th>
<th>PNEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl) phenol</td>
<td>Freshwater</td>
<td>0.084 mg/l</td>
<td></td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl) phenol</td>
<td>Intermittent releases to water</td>
<td>0.84 mg/l</td>
<td></td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl) phenol</td>
<td>Marine water</td>
<td>0.0084 mg/l</td>
<td></td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl) phenol</td>
<td>Sewage Treatment Plant</td>
<td>0.2 mg/l</td>
<td></td>
</tr>
<tr>
<td>Oxybis(ethyleneoxy)bis(propylamine)</td>
<td>Freshwater</td>
<td>0.22 mg/l</td>
<td></td>
</tr>
<tr>
<td>Oxybis(ethyleneoxy)bis(propylamine)</td>
<td>Freshwater sediments</td>
<td>0.809 mg/kg d.w.</td>
<td></td>
</tr>
<tr>
<td>Oxybis(ethyleneoxy)bis(propylamine)</td>
<td>Intermittent releases to water</td>
<td>2.2 mg/l</td>
<td></td>
</tr>
<tr>
<td>Oxybis(ethyleneoxy)bis(propylamine)</td>
<td>Marine water</td>
<td>0.022 mg/l</td>
<td></td>
</tr>
<tr>
<td>Oxybis(ethyleneoxy)bis(propylamine)</td>
<td>Marine water sediments</td>
<td>0.0809 mg/kg d.w.</td>
<td></td>
</tr>
<tr>
<td>Oxybis(ethyleneoxy)bis(propylamine)</td>
<td>Sewage Treatment Plant</td>
<td>125 mg/l</td>
<td></td>
</tr>
</tbody>
</table>

### 8.2. Exposure controls

In addition, refer to the annex for more information.

### 8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure...
Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

- Full face shield.
- Indirect vented goggles.

Applicable Norms/Standards

Use eye/face protection conforming to EN 166

Skin/hand protection

Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

Gloves made from the following material(s) are recommended:

<table>
<thead>
<tr>
<th>Material</th>
<th>Thickness (mm)</th>
<th>Breakthrough Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polymer laminate</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>Fluoroelastomer</td>
<td>0.7</td>
<td>&gt; 8 hours</td>
</tr>
</tbody>
</table>

The glove data presented are based on the substance driving dermal toxicity and the conditions present at the time of testing. Breakthrough time may be altered when the glove is subjected to use conditions that place additional stress on the glove.

Applicable Norms/Standards

Use gloves tested to EN 374

If this product is used in a manner that presents a higher potential for exposure (e.g., spraying, high splash potential etc.), then use of protective overalls may be necessary. Select and use body protection to prevent contact based on the results of an exposure assessment. The following protective clothing material(s) are recommended: Apron - polymer laminate

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

- Half facepiece or full facepiece air-purifying respirator suitable for organic vapours and particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

Applicable Norms/Standards

Use a respirator conforming to EN 140 or EN 136: filter types A & P

8.2.3. Environmental exposure controls

Refer to Annex

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Solid.
Specific Physical Form: Paste
Appearance/Odour Red paste; amine odor.
Odour threshold No data available.
pH Not applicable.
Boiling point/boiling range No data available.
Melting point No data available.
Flammability (solid, gas) Not classified
Explosive properties Not classified
Oxidising properties Not classified
Flash point >=100 °C [Test Method: Estimated]
Autoignition temperature No data available.
Flammable Limits(LEL) No data available.
Flammable Limits(UEL) No data available.
Relative density 1.03 - 1.13 [Ref Std: WATER=1]
Water solubility Negligible
Solubility- non-water No data available.
Partition coefficient: n-octanol/water No data available.
Evaporation rate No data available.
Vapour density No data available.
Decomposition temperature No data available.
Viscosity 10 - 25 Pa-s [@ 23 °C ]
Density 1.08 g/cm3

9.2. Other information
EU Volatile Organic Compounds No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section

10.2 Chemical stability
Stable.

10.3 Possibility of hazardous reactions
Hazardous polymerisation will not occur.

10.4 Conditions to avoid
Avoid curing large quantities of material to prevent a premature reaction (exotherm) with production of intense heat and smoke.
Heat.
Sparks and/or flames.

10.5 Incompatible materials
Strong acids.
Strong bases.
Strong oxidising agents.

10.6 Hazardous decomposition products

<table>
<thead>
<tr>
<th>Substance</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>None known.</td>
<td></td>
</tr>
</tbody>
</table>

Refer to section 5.2 for hazardous decomposition products during combustion.
SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation
Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin contact
May be harmful in contact with skin. Corrosive (skin burns): Signs/symptoms may include localised redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.

Eye contact
Corrosive (eye burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Ingestion
May be harmful if swallowed.
Gastrointestinal corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea; blood in the faeces and/or vomitus may also be seen.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

### Acute Toxicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall product</td>
<td>Dermal</td>
<td>No data available; calculated ATE2,000 - 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Overall product</td>
<td>Ingestion</td>
<td>No data available; calculated ATE2,000 - 5,000 mg/kg</td>
<td></td>
</tr>
<tr>
<td>3,3'-Oxybis(ethyleneoxy)bis(propylamine)</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD50 2,500 mg/kg</td>
</tr>
<tr>
<td>3,3'-Oxybis(ethyleneoxy)bis(propylamine)</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 3,160 mg/kg</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol</td>
<td>Dermal</td>
<td>Rat</td>
<td>LD50 1,280 mg/kg</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 1,000 mg/kg</td>
</tr>
<tr>
<td>Synthetic amorphous silica, fumed, crystalline-free</td>
<td>Dermal</td>
<td>Rabbit</td>
<td>LD50 &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Synthetic amorphous silica, fumed, crystalline-free</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LC50 &gt; 0.691 mg/l</td>
</tr>
<tr>
<td>Glass, oxide, chemicals</td>
<td>Dermal</td>
<td>Rat</td>
<td>LD50 estimated to be &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Glass, oxide, chemicals</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 estimated to be 2,000 - 5,000 mg/kg</td>
</tr>
<tr>
<td>Bis(dimethylamino)methyl]phenol</td>
<td>Ingestion</td>
<td>Rat</td>
<td>LD50 estimated to be 300 - 2,000 mg/kg</td>
</tr>
</tbody>
</table>

ATE = acute toxicity estimate

### Skin Corrosion/Irritation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,3'-Oxybis(ethyleneoxy)bis(propylamine)</td>
<td>Rabbit</td>
<td>Corrosive</td>
</tr>
</tbody>
</table>
### 2,4,6-Tris(dimethylaminomethyl)phenol

- **Species**: Rabbit
- **Value**: Corrosive

### Synthetic amorphous silica, fumed, crystalline-free

- **Species**: Rabbit
- **Value**: No significant irritation

### Glass, oxide, chemicals

- **Species**: Professional judgement
- **Value**: No significant irritation

### Bis(dimethylamino)methylphenol

- **Species**: similar compounds
- **Value**: Corrosive

### Skin Sensitisation

<table>
<thead>
<tr>
<th>Name</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol</td>
<td>Guinea pig</td>
<td>Not classified</td>
</tr>
<tr>
<td>Synthetic amorphous silica, fumed, crystalline-free</td>
<td>Human and animal</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

### Respiratory Sensitisation

For the component/components, either no data is currently available or the data is not sufficient for classification.

### Germ Cell Mutagenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol</td>
<td>In Vitro</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>Synthetic amorphous silica, fumed, crystalline-free</td>
<td>In Vitro</td>
<td>Not mutagenic</td>
</tr>
<tr>
<td>Glass, oxide, chemicals</td>
<td>In Vitro</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
</tbody>
</table>

### Carcinogenicity

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Species</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic amorphous silica, fumed, crystalline-free</td>
<td>Not specified</td>
<td>Mouse</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
<tr>
<td>Glass, oxide, chemicals</td>
<td>Inhalation</td>
<td>Multiple animal species</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
</tr>
</tbody>
</table>

### Reproductive Toxicity

### Reproductive and/or Developmental Effects

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Value</th>
<th>Species</th>
<th>Test result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic amorphous silica, fumed, crystalline-free</td>
<td>Ingestion</td>
<td>Not classified for female reproduction</td>
<td>Rat</td>
<td>NOAEL 509 mg/kg/day</td>
<td>1 generation</td>
</tr>
<tr>
<td>Synthetic amorphous silica, fumed, crystalline-free</td>
<td>Ingestion</td>
<td>Not classified for male reproduction</td>
<td>Rat</td>
<td>NOAEL 497 mg/kg/day</td>
<td>1 generation</td>
</tr>
</tbody>
</table>
Target Organ(s)

Specific Target Organ Toxicity - single exposure

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target Organ(s)</th>
<th>Value</th>
<th>Species</th>
<th>Test result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,3'-Oxybis(ethyleneoxy)bis(propylamine)</td>
<td>Inhalation</td>
<td>respiratory irritation</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL Not available</td>
<td></td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl) phenol</td>
<td>Inhalation</td>
<td>respiratory irritation</td>
<td>Some positive data exist, but the data are not sufficient for classification</td>
<td>Rat</td>
<td>NOAEL Not available</td>
<td></td>
</tr>
</tbody>
</table>

Specific Target Organ Toxicity - repeated exposure

<table>
<thead>
<tr>
<th>Name</th>
<th>Route</th>
<th>Target Organ(s)</th>
<th>Value</th>
<th>Species</th>
<th>Test result</th>
<th>Exposure Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl) phenol</td>
<td>Dermal</td>
<td>skin</td>
<td>liver</td>
<td>nervous</td>
<td>auditory</td>
<td>system</td>
</tr>
<tr>
<td>Synthetic amorphous silica, fumed, crystalline-free</td>
<td>Inhalation</td>
<td>respiratory system</td>
<td>silicosis</td>
<td>Human</td>
<td>NOAEL Not available</td>
<td>occupational exposure</td>
</tr>
<tr>
<td>Glass, oxide, chemicals</td>
<td>Inhalation</td>
<td>respiratory system</td>
<td>Not classified</td>
<td>Human</td>
<td>NOAEL not available</td>
<td>occupational exposure</td>
</tr>
</tbody>
</table>

Aspiration Hazard
For the component/components, either no data is currently available or the data is not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

12.1. Toxicity

No product test data available.
<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Nbr</th>
<th>Test type</th>
<th>Duration</th>
<th>Study Type</th>
<th>Test result</th>
<th>Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,3’-Oxybis(ethyleneoxy)bis(propylamine)</td>
<td>4246-51-9</td>
<td>Experimental Biodegradation</td>
<td>25 days</td>
<td>CO2 evolution</td>
<td>-8 % weight</td>
<td>OECD 301B - Modified sturm or CO2</td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol</td>
<td>90-72-2</td>
<td>Experimental Biodegradation</td>
<td>28 days</td>
<td>BOD</td>
<td>4 % weight</td>
<td>OECD 301D - Closed bottle test</td>
</tr>
<tr>
<td>Synthetic amorphous silica, fumed, crystalline-free</td>
<td>112945-52-5</td>
<td>Data not availbl-insufficient</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Glass, oxide, chemicals</td>
<td>65997-17-3</td>
<td>Data not availbl-insufficient</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Bis(dimethylamino)methylphenol</td>
<td>71074-89-0</td>
<td>Estimated Biodegradation</td>
<td>28 days</td>
<td>BOD</td>
<td>20 % weight</td>
<td>OECD 301C - MITI test (I)</td>
</tr>
</tbody>
</table>

### 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS Nbr</th>
<th>Test type</th>
<th>Duration</th>
<th>Study Type</th>
<th>Test result</th>
<th>Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,3’-Oxybis(ethyleneoxy)bis(propylamine)</td>
<td>4246-51-9</td>
<td>Estimated Biocorcentration</td>
<td>Log Kow</td>
<td>-1.46</td>
<td>Estimated: Octanol-water partition coefficient</td>
<td></td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol</td>
<td>90-72-2</td>
<td>Experimental Bioconcentration</td>
<td>Log Kow</td>
<td>-0.66</td>
<td>Other methods</td>
<td></td>
</tr>
<tr>
<td>Synthetic amorphous silica, fumed, crystalline-free</td>
<td>112945-52-5</td>
<td>Data not available or insufficient for classification</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Glass, oxide, chemicals</td>
<td>65997-17-3</td>
<td>Data not available or insufficient for classification</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### 12.3 : Bioaccumulative potential

<table>
<thead>
<tr>
<th>Material</th>
<th>Cas No.</th>
<th>Test type</th>
<th>Duration</th>
<th>Study Type</th>
<th>Test result</th>
<th>Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,3’-Oxybis(ethyleneoxy)bis(propylamine)</td>
<td>4246-51-9</td>
<td>Estimated Bioconcentration</td>
<td>Log Kow</td>
<td>-1.46</td>
<td>Estimated: Octanol-water partition coefficient</td>
<td></td>
</tr>
<tr>
<td>2,4,6-Tris(dimethylaminomethyl)phenol</td>
<td>90-72-2</td>
<td>Experimental Bioconcentration</td>
<td>Log Kow</td>
<td>-0.66</td>
<td>Other methods</td>
<td></td>
</tr>
<tr>
<td>Synthetic amorphous silica, fumed, crystalline-free</td>
<td>112945-52-5</td>
<td>Data not available or insufficient for classification</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Glass, oxide, chemicals</td>
<td>65997-17-3</td>
<td>Data not available or insufficient for classification</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
12.4. Mobility in soil
Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment
This material does not contain any substances that are assessed to be a PBT or vPvB

12.6. Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Dispose of contents/container in accordance with the local/regional/national/international regulations.

Dispose of completely cured (or polymerized) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

EU waste code (product as sold)

- 08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances
- 20 01 27* Paint, inks, adhesives and resins containing dangerous substances

SECTION 14: Transportation information

ADR: UN3259; Amines, Solid, Corrosive, N.O.S. (3,3'-oxybis(ethyleneoxy)bis(propylamine)); 8; II; (E); C8.
IATA: UN3259; Amines, solid, corrosive, n.o.s. (3,3'-Oxybis(ethyleneoxy)bis(propylamine)); 8; II.
IMDG: UN3259; Amines, Solid, Corrosive, N.O.S. (3,3'-oxybis(ethyleneoxy)bis(propylamine)); 8; II; FA, SB.

SECTION 15: Regulatory information

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

Global inventory status
Contact 3M for more information.

15.2. Chemical Safety Assessment
A chemical safety assessment has not been carried out for this mixture. Chemical safety assessments for the contained substances may have been carried out by the registrants of the substances in accordance with Regulation (EC) No 1907/2006, as amended.

SECTION 16: Other information
List of relevant H statements

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

Revision information:
Formulation: Section 16: Annex information was added.
Industrial Application of Adhesives: Section 16: Annex information was deleted.
Industrial Transfer: Section 16: Annex information was modified.
Industrial Use of Adhesives: Section 16: Annex information was added.
Professional Mixing and Application: Section 16: Annex information was added.
Section 3: Composition/ Information of ingredients table information was modified.
Section 8: DNEL table row information was modified.
Section 8: PNEC table row information was modified.
Section 11: Reproductive and/or Developmental Effects text information was deleted.
Section 12: Component ecotoxicity information information was modified.
Section 13: 13.1. Waste disposal note information was modified.

Annex

1. Title

| Substance identification | 2,4,6-Tris(dimethylaminomethyl)phenol;  
EC No. 202-013-9;  
CAS Nbr 90-72-2; |
| Exposure Scenario Name | Formulation |
| Lifecycle Stage | Formulation or re-packing |
| Contributing activities | PROC 08b - Transfer of substance or mixture (charging and discharging) at dedicated facilities  
PROC 09 - Transfer of substance or mixture into small containers (dedicated filling line, including weighing)  
ERC 02 - Formulation into mixture |
| Processes, tasks and activities covered | Transfer of substances/mixtures into small containers e.g. tubes, bottles or small reservoirs. Transfers with dedicated controls, including loading, filling, dumping, bagging. |

2. Operational conditions and risk management measures

| Operating Conditions | Physical state: Liquid.  
General operating conditions:  
Air exchange rate: $\geq 3$ times per hour;  
Indoor use;  
Partially open and partially closed process;  
Processing Temperature: $\leq 40$ degree Celsius;  
Task: PROC08b:  
Duration of exposure per day at workplace [for one worker]: 8 hours/day;  
Task: PROC09:  
Duration of exposure per day at workplace [for one worker]: $\leq 4$ hour(s); |
| Risk management measures | Under the operational conditions described above the following risk management measures apply:  
General risk management measures:  
Human health:  
Local exhaust ventilation;  
Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for specific glove material.;  
Environmental: |
### Waste management measures

None needed;

No use-specific waste management measures are required for this product. Refer to Section 13 of main SDS for disposal instructions.

### Prediction of exposure

**Prediction of exposure**

Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

### 1. Title

**Substance identification**

3,3'-Oxybis(ethyleneoxy)bis(propylamine);
EC No. 224-207-2;
CAS Nbr 4246-51-9;

**Exposure Scenario Name**

Industrial Transfer

**Lifecycle Stage**

Use at industrial sites

**Contributing activities**

PROC 08b - Transfer of substance or mixture (charging and discharging) at dedicated facilities
ERC 02 - Formulation into mixture

**Processes, tasks and activities covered**

Transfer of substance/mixture with dedicated engineering controls.

### 2. Operational conditions and risk management measures

#### Operating Conditions

**Physical state:** Liquid.

**General operating conditions:**

Duration of use: 8 hours/day;
Frequency of exposure at workplace [for one worker]: 5 days/week;
Processing Temperature: 20 degree Celsius;

**Risk management measures**

Under the operational conditions described above the following risk management measures apply:

**General risk management measures:**

**Human health:**

Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training. Refer to Section 8 of the SDS for specific glove material;

**Environmental:**

None needed;

**Waste management measures**

Do not release to waterways or sewers;
Incinerate in a permitted hazardous waste incinerator;

### 3. Prediction of exposure

**Prediction of exposure**

Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

### 1. Title

**Substance identification**

3,3'-Oxybis(ethyleneoxy)bis(propylamine);
EC No. 224-207-2;
CAS Nbr 4246-51-9;

**Exposure Scenario Name**

Industrial Use of Adhesives

**Lifecycle Stage**

Use at industrial sites

**Contributing activities**

PROC 13 - Treatment of articles by dipping and pouring
ERC 06d - Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article)

**Processes, tasks and activities covered**

Application of product through a mixing nozzle

### 2. Operational conditions and risk management measures

#### Operating Conditions

**Physical state:** Liquid.

**General operating conditions:**

Duration of use: 8 hours/day;
Frequency of exposure at workplace [for one worker]: 5 days/week;
Processing Temperature: 20 degree Celsius;
## Risk management measures

Under the operational conditions described above the following risk management measures apply:

### General risk management measures:

#### Human health:
Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training. Refer to Section 8 of the SDS for specific glove material.;

#### Environmental:
None needed;

### Waste management measures

Do not release to waterways or sewers; Incinerate in a permitted hazardous waste incinerator;

### 3. Prediction of exposure

**Prediction of exposure**

Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

### 1. Title

**Substance identification**

2,4,6-Tris(dimethylaminomethyl)phenol;
EC No. 202-013-9;
CAS Nbr 90-72-2;

**Exposure Scenario Name**

Industrial Use of Adhesives

**Lifecycle Stage**

Use at industrial sites

**Contributing activities**

PROC 05 - Mixing or blending in batch processes
PROC 08a - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC 10 - Roller application or brushing
PROC 13 - Treatment of articles by dipping and pouring
ERC 05 - Use at industrial site leading to inclusion into/onto article

**Processes, tasks and activities covered**

Application of product with a roller or brush. Application of product with applicator gun. Mixing operations (open systems). Transfers without dedicated controls, including loading, filling, dumping, bagging.

### 2. Operational conditions and risk management measures

#### Operating Conditions

**Physical state:** Liquid.

**General operating conditions:**
Air exchange rate:: >= 3 times per hour;
Duration of exposure per day at workplace [for one worker]: <= 4 hour(s);
Indoor use;
Processing Temperature:: <= 40 degree Celsius;

**Task:** PROC05;
Duration of exposure per day at workplace [for one worker]: 8 hours/day;

**Risk management measures**

Under the operational conditions described above the following risk management measures apply:

### General risk management measures:

#### Human health:
Local exhaust ventilation;
Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for specific glove material;

#### Environmental:
None needed;

**Waste management measures**

Do not release to waterways or sewers;

### 3. Prediction of exposure

**Prediction of exposure**

Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.
## 1. Title

### Substance identification
2,4,6-Tris(dimethylaminomethyl)phenol; EC No. 202-013-9; CAS Nbr 90-72-2;

### Exposure Scenario Name
Hand-mixing of preparations, e.g. plasters, resins, two-component adhesives.

### Lifecycle Stage
Widespread use by professional workers

### Contributing activities
PROC 10 - Roller application or brushing  
ERC 08c - Widespread use leading to inclusion into/onto article (indoor)

### Processes, tasks and activities covered
Application of product.

## 2. Operational conditions and risk management measures

### Operating Conditions
- **Physical state**: Liquid  
- **General operating conditions**:
  - Duration of exposure per day at workplace [for one worker]: 8 hours/day;  
  - Indoor use;  
  - Processing Temperature: <= 40 degree Celsius;

### Risk management measures
Under the operational conditions described above the following risk management measures apply:

#### General risk management measures:

#### Human health:
- Local exhaust ventilation;  
- Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for specific glove material.;  

#### Environmental:
None needed;

### Waste management measures
Do not release directly to waterways;

## 3. Prediction of exposure

### Prediction of exposure
Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

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