



## Safety Data Sheet

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**Transportation version number:**

**Version number:** 2.00  
**Supersedes date:** 26/03/2021

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006), as amended for GB.

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

#### 1.1. Product identifier

3M™ Scotch-Weld™ Epoxy Adhesive DP-460 EG

#### Product Identification Numbers

XA-0068-0023-0

7100171191

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

##### Identified uses

Electronic grade 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](http://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:

36-6618-7, 09-2119-7

### TRANSPORTATION INFORMATION

Refer to section 14 of the kit components for transport information.

## KIT LABEL

### 2.1. Classification of the substance or mixture

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

#### CLASSIFICATION:

Skin Corrosion/Irritation, Category 1B - Skin Corr. 1B; H314

Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318

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

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

#### SIGNAL WORD

DANGER.

#### Symbols

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

#### Pictograms



#### Contains:

bis-[4-(2,3-epoxipropoxy)phenyl]propane; 3,3'-Oxybis(ethyleneoxy)bis(propylamine); 2,4,6-tris(dimethylaminomethyl)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:

|       |   |
|-------|---|
| P260A | Do not breathe vapours.                         |
| P273  | Avoid release to the environment.               |
| P280B | Wear protective gloves and eye/face protection. |

##### Response:

|                    |  |
|--------------------|--|
| P303 + P361 + P353 | 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.  |

For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:

**<=125 ml Hazard statements**

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

**<=125 ml Precautionary statements****Prevention:**

P260A Do not breathe vapours.  
P280B Wear protective gloves and eye/face protection.

**Response:**

P303 + P361 + P353 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.

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

**Revision information:**

GB Kit Information: CLP Percent Unknown information was added.  
GB Label: CLP Ingredients - kit components information was added.  
Label: CLP Percent Unknown - Kit information was deleted.  
Kit: Component document group number(s) information was modified.  
Label: CLP Ingredients - kit components information was deleted.  
Section 2: <125ml Precautionary - Prevention information was modified.  
Label: CLP Precautionary - Prevention information was modified.



## Safety Data Sheet

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**Document group:** 36-6618-7  
**Revision date:** 15/01/2024

**Version number:** 2.00  
**Supersedes date:** 21/08/2023

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006), as amended for GB.

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

#### 1.1. Product identifier

3M Scotch-Weld Epoxy Adhesive DP-460 EG (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

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

##### CLASSIFICATION:

Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315  
Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319  
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****The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain****SIGNAL WORD**

WARNING.

**Symbols**

GHS07 (Exclamation mark) | GHS09 (Environment) |

**Pictograms**

| Ingredient                              | CAS Nbr   | EC No.    | % by Wt |
|---|-----------|-----------|---------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3 | 216-823-5 | 75 - 99 |

**HAZARD STATEMENTS:**

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

**PRECAUTIONARY STATEMENTS****Prevention:**

|       |                                   |
|-------|-----------------------------------|
| P273  | Avoid release to the environment. |
| P280E | Wear protective gloves.           |

**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.   |
| P391               | Collect spillage.  |

**For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:****<=125 ml Hazard statements**

|      |                                      |
|------|--------------------------------------|
| H317 | May cause an allergic skin reaction. |
|------|--------------------------------------|

**<=125 ml Precautionary statements****Prevention:**

|       |                         |
|-------|-------------------------|
| P280E | Wear protective gloves. |
|-------|-------------------------|

**Response:**

|             |  |
|-------------|--|
| P333 + P313 | If skin irritation or rash occurs: Get medical advice/attention. |
|-------------|--|

**2.3. Other hazards**

None known.

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

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Ingredient                              | Identifier(s)                             | %       | Classification according to Regulation (EC) No. 1272/2008 [CLP], as amended for GB         |
|---|---|---------|--|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | (CAS-No.) 1675-54-3<br>(EC-No.) 216-823-5 | 75 - 99 | Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Skin Sens. 1, H317<br>Aquatic Chronic 2, H411 |
| MBS Polymers                            | Trade Secret                              | 1 - 20  | Substance not classified as hazardous  |

Please see section 16 for the full text of any H statements referred to in this section

### Specific Concentration Limits

| Ingredient                              | Identifier(s)                             | Specific Concentration Limits                                 |
|---|---|---|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | (CAS-No.) 1675-54-3<br>(EC-No.) 216-823-5 | (C >= 5%) Skin Irrit. 2, H315<br>(C >= 5%) Eye Irrit. 2, H319 |

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

## 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

The most important symptoms and effects based on the GB CLP classification include:

Irritation to the skin (localized redness, swelling, itching, and dryness). Allergic skin reaction (redness, swelling, blistering, and itching). Serious irritation to the eyes (significant redness, swelling, pain, tearing, and impaired vision).

### 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

| <u>Substance</u>           | <u>Condition</u>   |
|----------------------------|--------------------|
| Aldehydes.                 | During combustion. |
| Carbon monoxide            | During combustion. |
| Carbon dioxide.            | During combustion. |
| Hydrogen Chloride          | During combustion. |
| Irritant vapours or gases. | During combustion. |

### 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. For larger spills, cover drains and build dykes to prevent entry into sewer systems or bodies of water.

### 6.3. Methods and material for containment and cleaning up

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. 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 acids. 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**

No occupational exposure limit values exist for any of the components listed in Section 3 of this Safety Data Sheet.

**Biological limit values**

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

**8.2. Exposure controls****8.2.1. Engineering controls**

Provide ventilated enclosure for heat curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. 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:

Safety glasses with side shields.

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. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity.

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

| <b>Material</b>  | <b>Thickness (mm)</b> | <b>Breakthrough Time</b> |
|------------------|-----------------------|--------------------------|
| Polymer laminate | No data available     | No data available        |

*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**

None required.



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

|  |  |
|--|--|
| Physical state                         | Liquid.  |
| Specific Physical Form:                | Viscous.   |
| Colour                                 | White  |
| Odor                                   | Very Mild Odor                                     |
| Odour threshold                        | <i>No data available.</i>                          |
| Melting point/freezing point           | <i>Not applicable.</i>                             |
| Boiling point/boiling range            | <i>No data available.</i>                          |
| Flammability (solid, gas)              | Not applicable.                                    |
| Flammable Limits(LEL)                  | <i>No data available.</i>                          |
| Flammable Limits(UEL)                  | <i>No data available.</i>                          |
| Flash point                            | $\geq 160$ °C [ <i>Test Method: Open Cup</i> ]     |
| Autoignition temperature               | <i>No data available.</i>                          |
| Decomposition temperature              | <i>No data available.</i>                          |
| pH                                     | <i>substance/mixture is non-soluble (in water)</i> |
| Kinematic Viscosity                    | 87,719 mm <sup>2</sup> /sec                        |
| Water solubility                       | Negligible   |
| Solubility- non-water                  | <i>No data available.</i>                          |
| Partition coefficient: n-octanol/water | <i>No data available.</i>                          |
| Vapour pressure                        | $\leq 4$ Pa [ <i>@ 20 °C</i> ]                     |
| Density                                | 1.14 g/ml [ <i>Ref Std: WATER=1</i> ]              |
| Relative density                       | 1.14   |
| Relative Vapour Density                | <i>No data available.</i>                          |

### 9.2. Other information

#### 9.2.2 Other safety characteristics

|                               |                           |
|-------------------------------|---------------------------|
| EU Volatile Organic Compounds | <i>No data available.</i> |
| Evaporation rate              | <i>Not applicable.</i>    |
| Molecular weight              | <i>No data available.</i> |
| Percent volatile              | 0 % weight                |

## 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 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.

### 10.5 Incompatible materials

Strong acids.

Strong oxidising agents.

### 10.6 Hazardous decomposition products

**Substance**

None known.

**Condition**

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

The information below may not agree with the 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 hazard classes as defined in the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain.

#### Signs and Symptoms of Exposure

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

#### Inhalation

No health effects are expected.

#### Skin contact

Mild Skin Irritation: Signs/symptoms may include localised redness, swelling, itching, and dryness. 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.

#### 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

| Name                                    | Route     | Species | Value  |
|---|-----------|---------|--|
| Overall product                         | Ingestion |         | No data available; calculated ATE >5,000 mg/kg |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Dermal    | Rat     | LD50 > 1,600 mg/kg                             |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Ingestion | Rat     | LD50 > 1,000 mg/kg                             |
| MBS Polymers                            | Dermal    | Rabbit  | LD50 > 5,000 mg/kg                             |
| MBS Polymers                            | Ingestion | Rat     | LD50 > 5,000 mg/kg                             |

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

| Name                                    | Species                | Value              |
|---|------------------------|--------------------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Rabbit                 | Mild irritant      |
| MBS Polymers                            | Professional judgement | Minimal irritation |

#### Serious Eye Damage/Irritation

| Name | Species | Value |
|------|---------|-------|
|      |         |       |

**3M Scotch-Weld Epoxy Adhesive DP-460 EG (Part B)**

|   |                        |                   |
|---|------------------------|-------------------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Rabbit                 | Moderate irritant |
| MBS Polymers                            | Professional judgement | Mild irritant     |

**Skin Sensitisation**

| Name                                    | Species          | Value       |
|---|------------------|-------------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Human and animal | Sensitising |

**Respiratory Sensitisation**

| Name                                    | Species | Value          |
|---|---------|----------------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Human   | Not classified |

**Germ Cell Mutagenicity**

| Name                                    | Route    | Value  |
|---|----------|--|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | In vivo  | Not mutagenic  |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | In Vitro | Some positive data exist, but the data are not sufficient for classification |

**Carcinogenicity**

| Name                                    | Route  | Species | Value  |
|---|--------|---------|--|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Dermal | Mouse   | Some positive data exist, but the data are not sufficient for classification |

**Reproductive Toxicity****Reproductive and/or Developmental Effects**

| Name                                    | Route     | Value                                  | Species | Test result         | Exposure Duration    |
|---|-----------|--|---------|---------------------|----------------------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Ingestion | Not classified for female reproduction | Rat     | NOAEL 750 mg/kg/day | 2 generation         |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Ingestion | Not classified for male reproduction   | Rat     | NOAEL 750 mg/kg/day | 2 generation         |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Dermal    | Not classified for development         | Rabbit  | NOAEL 300 mg/kg/day | during organogenesis |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Ingestion | Not classified for development         | Rat     | NOAEL 750 mg/kg/day | 2 generation         |

**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

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

**Specific Target Organ Toxicity - repeated exposure**

| Name                                    | Route     | Target Organ(s)                            | Value          | Species | Test result           | Exposure Duration |
|---|-----------|--|----------------|---------|-----------------------|-------------------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Dermal    | liver                                      | Not classified | Rat     | NOAEL 1,000 mg/kg/day | 2 years           |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Dermal    | nervous system                             | Not classified | Rat     | NOAEL 1,000 mg/kg/day | 13 weeks          |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | Ingestion | auditory system   heart   endocrine system | Not classified | Rat     | NOAEL 1,000 mg/kg/day | 28 days           |

|  |  |   |  |  |  |  |
|--|--|---|--|--|--|--|
|  |  | hematopoietic system   liver   eyes   kidney and/or bladder |  |  |  |  |
|--|--|---|--|--|--|--|

**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.**

**11.2. Information on other hazards**

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

## SECTION 12: Ecological information

The information below may not agree with the 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.

| Material                                | CAS #        | Organism         | Type  | Exposure | Test endpoint | Test result |
|---|--------------|------------------|---|----------|---------------|-------------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3    | Activated sludge | Analogous Compound                                    | 3 hours  | IC50          | >100 mg/l   |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3    | Rainbow trout    | Estimated   | 96 hours | LC50          | 2 mg/l      |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3    | Water flea       | Estimated   | 48 hours | EC50          | 1.8 mg/l    |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3    | Green algae      | Experimental  | 72 hours | ErC50         | >11 mg/l    |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3    | Green algae      | Experimental  | 72 hours | NOEC          | 4.2 mg/l    |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3    | Water flea       | Experimental  | 21 days  | NOEC          | 0.3 mg/l    |
| MBS Polymers                            | Trade Secret | N/A              | Data not available or insufficient for classification | N/A      | N/A           | N/A         |

**12.2. Persistence and degradability**

| Material                                | CAS Nbr      | Test type                     | Duration | Study Type                  | Test result       | Protocol                            |
|---|--------------|-------------------------------|----------|-----------------------------|-------------------|-------------------------------------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3    | Experimental Biodegradation   | 28 days  | BOD                         | 5 %BOD/COD        | OECD 301F - Manometric respirometry |
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3    | Experimental Hydrolysis       |          | Hydrolytic half-life (pH 7) | 117 hours (t 1/2) | OECD 111 Hydrolysis func of pH      |
| MBS Polymers                            | Trade Secret | Data not availbl-insufficient | N/A      | N/A                         | N/A               | N/A                                 |

**12.3 : Bioaccumulative potential**

| Material                                | Cas No.      | Test type   | Duration | Study Type | Test result | Protocol                     |
|---|--------------|---|----------|------------|-------------|------------------------------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3    | Experimental Bioconcentration                         |          | Log Kow    | 3.242       | OECD 117 log Kow HPLC method |
| MBS Polymers                            | Trade Secret | Data not available or insufficient for classification | N/A      | N/A        | N/A         | N/A                          |

#### 12.4. Mobility in soil

| Material                                | Cas No.   | Test type                | Study Type | Test result | Protocol  |
|---|-----------|--------------------------|------------|-------------|-----------|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3 | Modeled Mobility in Soil | Koc        | 450 l/kg    | Episuite™ |

#### 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

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

## 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. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. If no other disposal options are available, waste product that has been completely cured or polymerised may be placed in a landfill properly designed for industrial waste. 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

|                                     | Ground Transport (ADR)    | Air Transport (IATA)      | Marine Transport (IMDG)              |
|-------------------------------------|---------------------------|---------------------------|--------------------------------------|
| <b>14.1 UN number</b>               | UN3082                    | UN3082                    | UN3082                               |
| <b>14.2 UN proper shipping name</b> | ENVIRONMENTALLY HAZARDOUS | ENVIRONMENTALLY HAZARDOUS | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, |

|  |  |  |  |
|--|--|--|--|
|  | SUBSTANCE, LIQUID,<br>N.O.S.(EPOXY RESIN)                              | SUBSTANCE, LIQUID,<br>N.O.S.(EPOXY RESIN)                              | LIQUID, N.O.S.(EPOXY RESIN)  |
| <b>14.3 Transport hazard class(es)</b>   | 9  | 9  | 9  |
| <b>14.4 Packing group</b>  | III  | III  | III  |
| <b>14.5 Environmental hazards</b>  | Environmentally Hazardous  | Not applicable   | Marine Pollutant   |
| <b>14.6 Special precautions for user</b>   | Please refer to the other sections of the SDS for further information. | Please refer to the other sections of the SDS for further information. | Please refer to the other sections of the SDS for further information. |
| <b>14.7 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code</b> | No data available.   | No data available.   | No data available.   |
| <b>Control Temperature</b>   | No data available.   | No data available.   | No data available.   |
| <b>Emergency Temperature</b>   | No data available.   | No data available.   | No data available.   |
| <b>ADR Classification Code</b>   | M6   | Not applicable.  | Not applicable.  |
| <b>IMDG Segregation Code</b>   | Not applicable.  | Not applicable.  | NONE   |

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

## SECTION 15: Regulatory information

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

#### Carcinogenicity

| <u>Ingredient</u>                       | <u>CAS Nbr</u> | <u>Classification</u>   | <u>Regulation</u>                           |
|---|----------------|-------------------------|---|
| bis-[4-(2,3-epoxipropoxy)phenyl]propane | 1675-54-3      | Gr. 3: Not classifiable | International Agency for Research on Cancer |

#### Restrictions on the manufacture, placing on the market and use:

The following substance(s) contained in this product is/are subject to Annex XVII of regulation (EC) 1907/2006, as amended for GB, with regard to restrictions on the manufacture, placing on the market and use when present in certain dangerous conditions. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

| <u>Ingredient</u> | <u>CAS Nbr</u> |
|-------------------|----------------|
|-------------------|----------------|

bis-[4-(2,3-epoxipropoxy)phenyl]propane

1675-54-3

Restriction status: listed in UK REACH Annex XVII

Restricted uses: See Annex XVII to Regulation (EC) No 1907/2006 as amended for Great Britain for Conditions of Restriction

**Global inventory status**

Contact 3M for more information. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

**COMAH Regulation, SI 2015/483**

Seveso hazard categories, Annex 1, Part 1

| Hazard Categories                       | Qualifying quantity (tonnes) for the application of |                         |
|---|---|-------------------------|
|   | Lower-tier requirements                             | Upper-tier requirements |
| E2 Hazardous to the Aquatic environment | 200   | 500                     |

Seveso named dangerous substances, Annex 1, Part 2

None

**Regulation (EU) No 649/2012, as amended for GB**

No chemicals listed

**15.2. Chemical Safety Assessment**

A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended for GB.

**SECTION 16: Other information****List of relevant H statements**

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

**Revision information:**

GB Section 02: CLP Ingredient table information was modified.

Section 3: Composition/ Information of ingredients table information was modified.

Section 5: Hazardous combustion products table information was modified.

Section 6: Accidental release personal information information was modified.

Section 7: Precautions safe handling information information was modified.

Section 8: Appropriate Engineering controls information information was modified.

Section 8: Eye/face protection information information was modified.

Section 8: Personal Protection - Respiratory Information information was deleted.

Section 8: Respiratory protection - recommended respirators guide information was deleted.

Section 8: Respiratory protection - recommended respirators information information was deleted.

Section 8: Respiratory protection information information was added.

Section 9: Flash point information information was modified.

Section 11: Health Effects - Inhalation information information was modified.

Section 13: Standard Phrase Category Waste GHS information was modified.

Section 15: Seveso Hazard Category Text information was added.

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 SDSs for Great Britain are available at [www.3M.com/uk](http://www.3M.com/uk)**

For Northern Ireland documents, please contact your 3M representative to obtain a copy.





## Safety Data Sheet

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**Document group:** 09-2119-7  
**Revision date:** 15/01/2024

**Version number:** 16.01  
**Supersedes date:** 17/10/2023

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006), as amended for GB.

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

#### 1.1. Product identifier

3M Scotch-Weld™ Epoxy Adhesive DP-460 EG (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

The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

##### CLASSIFICATION:

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

For full text of H phrases, see Section 16.

**2.2. Label elements****The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain****SIGNAL WORD**

DANGER.

**Symbols**

GHS05 (Corrosion) | GHS07 (Exclamation mark) |

**Pictograms**

| Ingredient                               | CAS Nbr   | EC No.    | % by Wt |
|--|-----------|-----------|---------|
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | 4246-51-9 | 224-207-2 | 40 - 70 |
| 2,4,6-tris(dimethylaminomethyl)phenol    | 90-72-2   | 202-013-9 | 1 - 5   |

**HAZARD STATEMENTS:**

|      |  |
|------|--|
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction.     |

**PRECAUTIONARY STATEMENTS****Prevention:**

|       |   |
|-------|---|
| P260A | Do not breathe vapours.                         |
| P280B | Wear protective gloves and eye/face protection. |

**Response:**

|                    |  |
|--------------------|--|
| P303 + P361 + P353 | 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.   |

**For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:****<=125 ml Hazard statements**

|      |  |
|------|--|
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction.     |

**<=125 ml Precautionary statements****Prevention:**

|       |   |
|-------|---|
| P260A | Do not breathe vapours.                         |
| P280B | Wear protective gloves and eye/face protection. |

**Response:**

|                    |  |
|--------------------|--|
| P303 + P361 + P353 | 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                 |

P310  
P333 + P313

present and easy to do. Continue rinsing.  
Immediately call a POISON CENTRE or doctor/physician.  
If skin irritation or rash occurs: Get medical advice/attention.

39% of the mixture consists of components of unknown acute oral toxicity.  
39% of the mixture consists of components of unknown acute dermal toxicity.

Contains 39% of components with unknown hazards to the aquatic environment.

### 2.3. Other hazards

Persons previously sensitised to amines may develop a cross-sensitisation reaction to certain other amines.  
This material does not contain any substances that are assessed to be a PBT or vPvB

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Ingredient  | Identifier(s)                              | %       | Classification according to Regulation (EC) No. 1272/2008 [CLP], as amended for GB |
|---|--|---------|--|
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine)                  | (CAS-No.) 4246-51-9<br>(EC-No.) 224-207-2  | 40 - 70 | Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1, H317                      |
| adduct  | Trade Secret                               | 35 - 45 | Substance not classified as hazardous  |
| Silane, trimethoxyoctyl-, hydrolysis products with silica | (CAS-No.) 92797-60-9<br>(EC-No.) 296-597-2 | 3 - 7   | Substance with a national occupational exposure limit                              |
| 2,4,6-tris(dimethylaminomethyl)phenol                     | (CAS-No.) 90-72-2<br>(EC-No.) 202-013-9    | 1 - 5   | Acute Tox. 4, H302<br>Skin Corr. 1C, H314<br>Eye Dam. 1, H318                      |

Please see section 16 for the full text of any H statements referred to in this section

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

## 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**

The most important symptoms and effects based on the GB CLP classification include:

Skin burns (localized redness, swelling, itching, intense pain, blistering, and tissue destruction). Allergic skin reaction (redness, swelling, blistering, and itching).

**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**

**Substance**

Aldehydes.

Carbon monoxide

Carbon dioxide.

Hydrogen Chloride

**Condition**

During combustion.

During combustion.

During combustion.

During combustion.

**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**

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. 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 of vapours created during the cure cycle. For industrial/occupational use only. Not for consumer sale or

use. 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. 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 acids. 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.

| <b>Ingredient</b> | <b>CAS Nbr</b> | <b>Agency</b> | <b>Limit type</b>   | <b>Additional comments</b> |
|-------------------|----------------|---------------|---|----------------------------|
| Silicon dioxide   | 92797-60-9     | UK HSC        | TWA(as respirable dust):2.4 mg/m <sup>3</sup> ;TWA(as inhalable dust):6 mg/m <sup>3</sup> |                            |

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.

### **8.2. Exposure controls**

#### **8.2.1. Engineering controls**

Provide ventilated enclosure for heat curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. 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.

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

| Material        | Thickness (mm) | Breakthrough Time |
|-----------------|----------------|-------------------|
| Butyl rubber.   | 0.7            | =>8 hours         |
| Neoprene.       | 0.5            | =>8 hours         |
| Nitrile rubber. | 0.4            | =>8 hours         |

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 (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 – Butyl rubber  
Neoprene apron.  
Apron – Nitrile

#### 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

|  |   |
|--|---|
| Physical state                         | Liquid.                                     |
| Specific Physical Form:                | Viscous.                                    |
| Colour                                 | Amber                                       |
| Odor                                   | Very Mild Odor, Pungent Odor                |
| Odour threshold                        | No data available.                          |
| Melting point/freezing point           | Not applicable.                             |
| Boiling point/boiling range            | No data available.                          |
| Flammability (solid, gas)              | Not applicable.                             |
| Flammable Limits(LEL)                  | No data available.                          |
| Flammable Limits(UEL)                  | No data available.                          |
| Flash point                            | >=160 °C [Test Method:Open Cup]             |
| Autoignition temperature               | No data available.                          |
| Decomposition temperature              | No data available.                          |
| pH                                     | substance/mixture is non-soluble (in water) |
| Kinematic Viscosity                    | 9,906 mm²/sec                               |
| Water solubility                       | Negligible                                  |
| Solubility- non-water                  | No data available.                          |
| Partition coefficient: n-octanol/water | No data available.                          |
| Vapour pressure                        | <=0.4 Pa [@ 20 °C ]                         |
| Density                                | 1.06 g/ml                                   |

|                         |                         |
|-------------------------|-------------------------|
| Relative density        | 1.06 [Ref Std: WATER=1] |
| Relative Vapour Density | No data available.      |

## 9.2. Other information

### 9.2.2 Other safety characteristics

|                               |                    |
|-------------------------------|--------------------|
| EU Volatile Organic Compounds | No data available. |
| Evaporation rate              | Not applicable.    |
| Molecular weight              | No data available. |
| Percent volatile              | 0 % weight         |

## 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 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.

### 10.5 Incompatible materials

Strong acids.  
Strong oxidising agents.

### 10.6 Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
| None known.      |                  |

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

The information below may not agree with the 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 hazard classes as defined in the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain.

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

**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.

**Additional information:**

Persons previously sensitised to amines may develop a cross-sensitisation reaction to certain other amines.

**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**

| Name  | Route     | Species | Value   |
|---|-----------|---------|---|
| Overall product   | Dermal    |         | No data available; calculated ATE >2,000 - =5,000 mg/kg |
| Overall product   | Ingestion |         | No data available; calculated ATE >2,000 - =5,000 mg/kg |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine)                  | Dermal    | Rabbit  | LD50 2,525 mg/kg  |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine)                  | Ingestion | Rat     | LD50 2,850 mg/kg  |
| Silane, trimethoxyoctyl-, hydrolysis products with silica | Dermal    |         | LD50 estimated to be > 5,000 mg/kg                      |
| Silane, trimethoxyoctyl-, hydrolysis products with silica | Ingestion | Rat     | LD50 > 5,340 mg/kg                                      |
| 2,4,6-tris(dimethylaminomethyl)phenol                     | Dermal    | Rat     | LD50 1,280 mg/kg  |
| 2,4,6-tris(dimethylaminomethyl)phenol                     | Ingestion | Rat     | LD50 1,000 mg/kg  |

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

| Name                                     | Species | Value     |
|--|---------|-----------|
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | Rabbit  | Corrosive |
| 2,4,6-tris(dimethylaminomethyl)phenol    | Rabbit  | Corrosive |

**Serious Eye Damage/Irritation**

| Name                                     | Species | Value     |
|--|---------|-----------|
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | Rabbit  | Corrosive |
| 2,4,6-tris(dimethylaminomethyl)phenol    | Rabbit  | Corrosive |

**Skin Sensitisation**

| Name                                     | Species                | Value          |
|--|------------------------|----------------|
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | Professional judgement | Sensitising    |
| 2,4,6-tris(dimethylaminomethyl)phenol    | Guinea pig             | Not classified |

**Respiratory Sensitisation**

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



**Germ Cell Mutagenicity**

| Name                                     | Route    | Value         |
|--|----------|---------------|
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | In Vitro | Not mutagenic |
| 2,4,6-tris(dimethylaminomethyl)phenol    | In Vitro | Not mutagenic |

**Carcinogenicity**

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

**Reproductive Toxicity****Reproductive and/or Developmental Effects**

| Name                                     | Route     | Value                                  | Species | Test result         | Exposure Duration        |
|--|-----------|--|---------|---------------------|--------------------------|
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | Ingestion | Not classified for female reproduction | Rat     | NOAEL 600 mg/kg/day | premating into lactation |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | Ingestion | Not classified for male reproduction   | Rat     | NOAEL 600 mg/kg/day | 59 days                  |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | Ingestion | Not classified for development         | Rat     | NOAEL 600 mg/kg/day | premating into lactation |

**Target Organ(s)****Specific Target Organ Toxicity - single exposure**

| Name                                     | Route      | Target Organ(s)        | Value  | Species                | Test result         | Exposure Duration |
|--|------------|------------------------|--|------------------------|---------------------|-------------------|
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | similar health hazards | NOAEL Not available |                   |
| 2,4,6-tris(dimethylaminomethyl)phenol    | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification |                        | NOAEL Not available |                   |

**Specific Target Organ Toxicity - repeated exposure**

| Name                                     | Route     | Target Organ(s)   | Value          | Species | Test result         | Exposure Duration |
|--|-----------|---|----------------|---------|---------------------|-------------------|
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | Ingestion | gastrointestinal tract   heart   endocrine system   bone, teeth, nails, and/or hair   hematopoietic system   liver   immune system   muscles   nervous system   eyes   kidney and/or bladder   respiratory system   vascular system | Not classified | Rat     | NOAEL 600 mg/kg/day | 59 days           |
| 2,4,6-tris(dimethylaminomethyl)phenol    | Dermal    | skin   liver   nervous system   auditory system   hematopoietic system   eyes   | Not classified | Rat     | NOAEL 125 mg/kg/day | 28 days           |

**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.**

## 11.2. Information on other hazards

This material does not contain any substances that are assessed to be an endocrine disruptor for human health.

## SECTION 12: Ecological information

The information below may not agree with the 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.

| Material  | CAS #        | Organism                      | Type  | Exposure | Test endpoint | Test result   |
|---|--------------|-------------------------------|---|----------|---------------|---------------|
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine)                  | 4246-51-9    | Bacteria                      | Experimental  | 17 hours | EC50          | 4,000 mg/l    |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine)                  | 4246-51-9    | Golden Orfe                   | Experimental  | 96 hours | LC50          | >1,000 mg/l   |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine)                  | 4246-51-9    | Green algae                   | Experimental  | 72 hours | EC50          | >500 mg/l     |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine)                  | 4246-51-9    | Water flea                    | Experimental  | 48 hours | EC50          | 218.16 mg/l   |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine)                  | 4246-51-9    | Green algae                   | Experimental  | 72 hours | EC10          | 5.4 mg/l      |
| adduct  | Trade Secret | N/A                           | Data not available or insufficient for classification | N/A      | N/A           | N/A           |
| Silane, trimethoxyoctyl-, hydrolysis products with silica | 92797-60-9   | Algae or other aquatic plants | Experimental  | 72 hours | EC50          | >=10,000 mg/l |
| Silane, trimethoxyoctyl-, hydrolysis products with silica | 92797-60-9   | Water flea                    | Experimental  | 24 hours | EL50          | >10,000 mg/l  |
| Silane, trimethoxyoctyl-, hydrolysis products with silica | 92797-60-9   | Zebra Fish                    | Experimental  | 96 hours | LC50          | >10,000 mg/l  |
| 2,4,6-tris(dimethylamino methyl)phenol                    | 90-72-2      | N/A                           | Experimental  | 96 hours | LC50          | 718 mg/l      |
| 2,4,6-tris(dimethylamino methyl)phenol                    | 90-72-2      | Common Carp                   | Experimental  | 96 hours | LC50          | >100 mg/l     |
| 2,4,6-tris(dimethylamino methyl)phenol                    | 90-72-2      | Green algae                   | Experimental  | 72 hours | EC50          | 46.7 mg/l     |
| 2,4,6-tris(dimethylamino methyl)phenol                    | 90-72-2      | Water flea                    | Experimental  | 48 hours | EC50          | >100 mg/l     |
| 2,4,6-tris(dimethylamino methyl)phenol                    | 90-72-2      | Green algae                   | Experimental  | 72 hours | NOEC          | 6.44 mg/l     |

### 12.2. Persistence and degradability

| Material  | CAS Nbr      | Test type                     | Duration | Study Type                    | Test result                       | Protocol                          |
|---|--------------|-------------------------------|----------|-------------------------------|-----------------------------------|-----------------------------------|
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine)                  | 4246-51-9    | Experimental Biodegradation   | 25 days  | CO2 evolution                 | -8 %CO2 evolution/THCO2 evolution | OECD 301B - Modified sturm or CO2 |
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine)                  | 4246-51-9    | Estimated Photolysis          |          | Photolytic half-life (in air) | 2.96 hours (t 1/2)                |                                   |
| adduct  | Trade Secret | Data not availbl-insufficient | N/A      | N/A                           | N/A                               | N/A                               |
| Silane, trimethoxyoctyl-, hydrolysis products with silica | 92797-60-9   | Data not availbl-insufficient | N/A      | N/A                           | N/A                               | N/A                               |
| 2,4,6-tris(dimethylamino methyl)phenol                    | 90-72-2      | Experimental Biodegradation   | 28 days  | BOD                           | 4 %BOD/ThOD                       | OECD 301D - Closed bottle test    |

### 12.3 : Bioaccumulative potential

| Material  | Cas No.      | Test type   | Duration | Study Type | Test result | Protocol                        |
|---|--------------|---|----------|------------|-------------|---------------------------------|
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine)                  | 4246-51-9    | Experimental Bioconcentration                         |          | Log Kow    | -1.25       |                                 |
| adduct  | Trade Secret | Data not available or insufficient for classification | N/A      | N/A        | N/A         | N/A                             |
| Silane, trimethoxyoctyl-, hydrolysis products with silica | 92797-60-9   | Data not available or insufficient for classification | N/A      | N/A        | N/A         | N/A                             |
| 2,4,6-tris(dimethylamino methyl)phenol                    | 90-72-2      | Experimental Bioconcentration                         |          | Log Kow    | -0.66       | 830.7550 Part.Coeff Shake Flask |

### 12.4. Mobility in soil

| Material                                 | Cas No.   | Test type                | Study Type | Test result | Protocol             |
|--|-----------|--------------------------|------------|-------------|----------------------|
| 3,3'-Oxybis(ethyleneoxy)bis(propylamine) | 4246-51-9 | Modeled Mobility in Soil | Koc        | 1 l/kg      | ACD/Labs ChemSketch™ |

### 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

This material does not contain any substances that are assessed to be an endocrine disruptor for environmental effects

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

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

Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. 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**

|  | <b>Ground Transport (ADR)</b>  | <b>Air Transport (IATA)</b>  | <b>Marine Transport (IMDG)</b>   |
|--|--|--|--|
| <b>14.1 UN number</b>  | UN2735   | UN2735   | UN2735   |
| <b>14.2 UN proper shipping name</b>  | AMINES, LIQUID, CORROSIVE, N.O.S.(4,7,10-TRIOXATRIDECANE-1,13-DIAMINE) | AMINES, LIQUID, CORROSIVE, N.O.S.(4,7,10-TRIOXATRIDECANE-1,13-DIAMINE) | AMINES, LIQUID, CORROSIVE, N.O.S.(4,7,10-TRIOXATRIDECANE-1,13-DIAMINE) |
| <b>14.3 Transport hazard class(es)</b>   | 8  | 8  | 8  |
| <b>14.4 Packing group</b>  | II   | II   | II   |
| <b>14.5 Environmental hazards</b>  | Not Environmentally Hazardous  | Not applicable   | Not a Marine Pollutant   |
| <b>14.6 Special precautions for user</b>   | Please refer to the other sections of the SDS for further information. | Please refer to the other sections of the SDS for further information. | Please refer to the other sections of the SDS for further information. |
| <b>14.7 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code</b> | No data available.   | No data available.   | No data available.   |
| <b>Control Temperature</b>   | No data available.   | No data available.   | No data available.   |
| <b>Emergency Temperature</b>   | No data available.   | No data available.   | No data available.   |
| <b>ADR Classification Code</b>   | C7   | Not applicable.  | Not applicable.  |
| <b>IMDG Segregation Code</b>   | Not applicable.  | Not applicable.  | 18 - ALKALIS   |

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

**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. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

**COMAH Regulation, SI 2015/483**

Seveso hazard categories, Annex 1, Part 1  
None

Seveso named dangerous substances, Annex 1, Part 2  
None

**Regulation (EU) No 649/2012, as amended for GB**

No chemicals listed

**15.2. Chemical Safety Assessment**

A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended for GB.

**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:**

Section 9: Flash point information information was modified.

**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 SDSs for Great Britain are available at [www.3M.com/uk](http://www.3M.com/uk)**

For Northern Ireland documents, please contact your 3M representative to obtain a copy.