

Safety Data Sheet

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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

3M Scotch-Weld EC-2615 Epoxy Adhesive B/A

Product Identification Numbers

87-3300-0134-5

7100155465

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

Identified uses

2-part epoxy adhesive

1.3. Details of the supplier of the safety data sheet

Address: 3M Ireland Limited, The Iveagh Building, The Park, Carrickmines, Dublin 18.

Telephone: +353 1 280 3555 E Mail: tox.uk@mmm.com

Website: www.3M.com

1.4. Emergency telephone number

Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166

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:

06-9315-0, 06-9312-7

TRANSPORTATION INFORMATION

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

KIT LABEL

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

CLASSIFICATION:

Substance or Mixture Corrosive to Metals, Category 1 - Met. Corr. 1; H290 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

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

DANGER.

Symbols

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

Pictograms







Contains:

2,4,6-tris(dimethylaminomethyl)phenol.; Calcium trifluormethanesulphonate; bis-[4-(2,3-epoxipropoxi)phenyl]propane; 3,3'-Oxybis(ethyleneoxy)bis(propylamine); 2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with bisphenol A and epichlorhydrin

HAZARD STATEMENTS:

H290 May be corrosive to metals.

Causes severe skin burns and eye damage. H314 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 + P353IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or

shower.

P305 + P351 + P338IF 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).

Revision information:

Label: CLP Ingredients - kit components information was modified.

Label: CLP Precautionary - Prevention information was modified.

Label: CLP Precautionary - Response information was modified.

Section 2: <125ml Precautionary - Prevention information was modified. Section 2: <125ml Precautionary - Response information was modified.



Safety Data Sheet

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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

3M Scotch-Weld EC-2615 B/A Epoxy Adhesive (Part A)

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

Identified uses

Part A for 2-part adhesive

1.3. Details of the supplier of the safety data sheet

Address: 3M Ireland Limited, The Iveagh Building, The Park, Carrickmines, Dublin 18.

Telephone: +353 1 280 3555 E Mail: tox.uk@mmm.com Website: www.3M.com

1.4. Emergency telephone number

Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

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:

Substance or Mixture Corrosive to Metals, Category 1 - Met. Corr. 1; H290 Skin Corrosion/Irritation, Category 1B - Skin Corr. 1B; H314

Skiii Collosioii/Illitatioii, Category 1B - Skiii Coll. 1B, f1514

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 3 - Aquatic Chronic 3; H412

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:

Ingredient	CAS Nbr	EC No.	% by Wt
3,3'-Oxybis(ethyleneoxy)bis(propylamine)	4246-51-9	224-207-2	40 - 70
2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with bisphenol A and epichlorhydrin	68610-41-3		20 - 30
bis-[4-(2,3-epoxipropoxi)phenyl]propane	1675-54-3	216-823-5	3 - 10
Calcium trifluormethanesulphonate	55120-75-7	415-540-6	1 - 5
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	202-013-9	1 - 5

HAZARD STATEMENTS:

H290 May be corrosive to metals.

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

H412 Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P260G Do not breathe vapours or dust.

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.

H412 Harmful to aquatic life with long lasting effects.

<=125 ml Precautionary statements

Prevention:

P260G Do not breathe vapours or dust.

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.

Contains 30% of components with unknown hazards to the aquatic environment.

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]
3,3'- Oxybis(ethyleneoxy)bis(propylamine)	(CAS-No.) 4246-51-9 (EC-No.) 224-207-2 (REACH-No.) 01- 2119963377-26	40 - 70	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317
2-Propenenitrile, polymer with 1,3- butadiene, carboxy-terminated, polymers with bisphenol A and epichlorhydrin	(CAS-No.) 68610-41-3	20 - 30	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
bis-[4-(2,3-epoxipropoxi)phenyl]propane	(CAS-No.) 1675-54-3 (EC-No.) 216-823-5 (REACH-No.) 01- 2119456619-26	3 - 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Siloxanes and Silicones, di-Me, reaction products with silica	(CAS-No.) 67762-90-7	3 - 7	Substance with a national occupational exposure limit
Calcium trifluormethanesulphonate	(CAS-No.) 55120-75-7 (EC-No.) ELINCS 415- 540-6 (REACH-No.) 01- 0000016247-70	1 - 5	Eye Dam. 1, H318
2,4,6-tris(dimethylaminomethyl)phenol	(CAS-No.) 90-72-2 (EC-No.) 202-013-9 (REACH-No.) 01- 2119560597-27	1 - 5	Acute Tox. 4, H302 Skin Corr. 1C, H314 Eye Dam. 1, H318

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
	` /	(C >= 5%) Skin Irrit. 2, H315 (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 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 CLP classification include:

Skin burns (localized redness, swelling, itching, intense pain, blistering, and tissue destruction). Allergic skin reaction (redness, swelling, blistering, and itching). Serious damage to the eyes (corneal cloudiness, severe pain, tearing, ulcerations, and significantly impaired or loss of 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

Substance	Condition
Aldehydes.	During combustion.
Carbon monoxide	During combustion.
Carbon dioxide.	During combustion.
Hydrogen Chloride	During combustion.
Hydrogen cyanide.	During combustion.
Oxides of nitrogen.	During combustion.
Oxides of sulphur.	During combustion.
Toxic vapour, gas, particulate.	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 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 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. Cover, but do not seal for 48 hours. 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

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.

7.2. Conditions for safe storage including any incompatibilities

Keep only in original container. Store in a corrosive resistant container with a resistant inner liner. Store away from acids.

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

Silicon dioxide

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.

Ingredient CAS Nbr Limit type Additional comments Agency

TWA(Total inhalable dust)(8 hours):6 mg/m3;TWA(as

67762-90-7 Ireland OELs

respirable dust)(8 hours):2.4

mg/m3

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Ireland OELs : Ireland. OELs 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)

Ingredient	Degradation	Population	Human exposure	DNEL
	Product		pattern	
bis-[4-(2,3-		Worker	Dermal, Long-term	8.3 mg/kg bw/d
epoxipropoxi)phenyl]prop			exposure (8 hours),	
ane			Systemic effects	
bis-[4-(2,3-		Worker	Dermal, Short-term	8.3 mg/kg bw/d
epoxipropoxi)phenyl]prop			exposure, Systemic	
ane			effects	
bis-[4-(2,3-		Worker	Inhalation, Long-term	12.3 mg/m ³
epoxipropoxi)phenyl]prop			exposure (8 hours),	
ane			Systemic effects	
bis-[4-(2,3-		Worker	Inhalation, Short-term	12.3 mg/m ³
epoxipropoxi)phenyl]prop			exposure, Systemic	
ane			effects	
2,4,6-		Worker	Inhalation, Long-term	0.31 mg/m^3
tris(dimethylaminomethyl)			exposure (8 hours),	
phenol			Systemic effects	
3,3'-		Worker	Dermal, Long-term	8.3 mg/kg bw/d
Oxybis(ethyleneoxy)bis(pr			exposure (8 hours),	
opylamine)			Systemic effects	
3,3'-		Worker	Inhalation, Long-term	1 mg/m³
Oxybis(ethyleneoxy)bis(pr			exposure (8 hours), Local	
opylamine)			effects	
3,3'-		Worker	Inhalation, Long-term	59 mg/m ³
Oxybis(ethyleneoxy)bis(pr			exposure (8 hours),	
opylamine)			Systemic effects	
3,3'-		Worker	Inhalation, Short-term	13 mg/m ³
Oxybis(ethyleneoxy)bis(pr			exposure, Local effects	
opylamine)				
3,3'-		Worker	Inhalation, Short-term	176 mg/m³
Oxybis(ethyleneoxy)bis(pr			exposure, Systemic	
opylamine)			effects	

Ingredient	Degradation Product	Compartment	PNEC
bis-[4-(2,3- epoxipropoxi)phenyl]propa ne		Freshwater	0.003 mg/l
bis-[4-(2,3- epoxipropoxi)phenyl]propa ne		Freshwater sediments	0.5 mg/kg d.w.
bis-[4-(2,3- epoxipropoxi)phenyl]propa ne		Intermittent releases to water	0.013 mg/l
bis-[4-(2,3- epoxipropoxi)phenyl]propa		Marine water	0.0003 mg/l

ne		
bis-[4-(2,3- epoxipropoxi)phenyl]propa	Marine water sediments	0.5 mg/kg d.w.
ne bis-[4-(2,3- epoxipropoxi)phenyl]propa	Sewage Treatment Plant	10 mg/l
ne 2,4,6- tris(dimethylaminomethyl)	Freshwater	0.084 mg/l
phenol 2,4,6- tris(dimethylaminomethyl) phenol	Intermittent releases to water	0.84 mg/l
2,4,6- tris(dimethylaminomethyl) phenol	Marine water	0.0084 mg/l
2,4,6- tris(dimethylaminomethyl) phenol	Sewage Treatment Plant	0.2 mg/l
3,3'- Oxybis(ethyleneoxy)bis(pr opylamine)	Freshwater	0.22 mg/l
3,3'- Oxybis(ethyleneoxy)bis(pr opylamine)	Freshwater sediments	0.809 mg/kg d.w.
3,3'- Oxybis(ethyleneoxy)bis(pr opylamine)	Intermittent releases to water	2.2 mg/l
3,3'- Oxybis(ethyleneoxy)bis(pr opylamine)	Marine water	0.022 mg/l
3,3'- Oxybis(ethyleneoxy)bis(pr opylamine)	Marine water sediments	0.0809 mg/kg d.w.
3,3'- Oxybis(ethyleneoxy)bis(pr opylamine)	Sewage Treatment Plant	125 mg/l

Recommended monitoring procedures: Information on recommended monitoring procedures can be obtained from Indust. Inspect./Ministry (IE)

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:

MaterialThickness (mm)Breakthrough TimePolymer laminateNo data availableNo 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

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 stateLiquid.ColourOrange-AmberOdorMild OdorOdour thresholdNo data available.

Melting point/freezing point

Boiling point/boiling range

Flammability (solid, gas)

Flammable Limits(LEL)

Flammable Limits(UEL)

No data available.

No data available.

No data available.

Flash point >=171.1 °C [Test Method:Closed Cup]

Autoignition temperatureNo data available.Decomposition temperatureNo data available.

pH substance/mixture is non-soluble (in water)

Kinematic Viscosity

Water solubility Solubility- non-water

Partition coefficient: n-octanol/water

Vapour pressure

Density

Relative density

Relative Vapour Density

7,143 mm²/sec

Slight (less than 10%) No data available.

No data available.

<=1.3 Pa [@ 20 °C]

1.12 g/ml [@ 20 °C]

1.12 [*Ref Std*:WATER=1] 3.72 [*Ref Std*:AIR=1]

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic Compounds No data available. **Evaporation rate** Not applicable. No data available. Molecular weight Percent volatile Negligible

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is considered to be non reactive under normal use conditions

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

Substance Condition

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 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 internal hazard assessments.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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.

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
2-Propenenitrile, polymer with 1,3-butadiene, carboxy- terminated, polymers with bisphenol A and epichlorhydrin	Dermal	Not available	LD50 3,000 mg/kg
2-Propenenitrile, polymer with 1,3-butadiene, carboxy- terminated, polymers with bisphenol A and epichlorhydrin	Ingestion	Not available	LD50 > 34,000 mg/kg
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Dermal	Rat	LD50 > 1,600 mg/kg
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Ingestion	Rat	LD50 > 1,000 mg/kg
Siloxanes and Silicones, di-Me, reaction products with silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Siloxanes and Silicones, di-Me, reaction products with silica	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Rat	LD50 > 5,110 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
Calcium trifluormethanesulphonate	Dermal	Professio nal judgeme nt	LD50 estimated to be 2,000 - 5,000 mg/kg
Calcium trifluormethanesulphonate	Ingestion	Rat	LD50 > 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Skin Corrosion/irritation				
Name	Species	Value		
3,3'-Oxybis(ethyleneoxy)bis(propylamine)	Rabbit	Corrosive		
2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with	similar	Irritant		
bisphenol A and epichlorhydrin	compoun			
	ds			
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Rabbit	Mild irritant		
Siloxanes and Silicones, di-Me, reaction products with silica	Rabbit	No significant irritation		
2,4,6-tris(dimethylaminomethyl)phenol	Rabbit	Corrosive		
Calcium trifluormethanesulphonate	Rabbit	Minimal irritation		

Serious Eve Damage/Irritation

Name	Species	Value
3,3'-Oxybis(ethyleneoxy)bis(propylamine)	Rabbit	Corrosive
2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with	similar	Severe irritant
bisphenol A and epichlorhydrin	compoun	
	ds	
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Rabbit	Moderate irritant
Siloxanes and Silicones, di-Me, reaction products with silica	Rabbit	No significant irritation
2,4,6-tris(dimethylaminomethyl)phenol	Rabbit	Corrosive
Calcium trifluormethanesulphonate	Rabbit	Corrosive

Skin Sensitisation

Name	Species	Value
3,3'-Oxybis(ethyleneoxy)bis(propylamine)	Professio	Sensitising
	nal	
	judgemen	
	t	
2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with	similar	Sensitising
bisphenol A and epichlorhydrin	compoun	
	ds	
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Human	Sensitising
	and	
	animal	
Siloxanes and Silicones, di-Me, reaction products with silica	Human	Not classified
	and	
	animal	
2,4,6-tris(dimethylaminomethyl)phenol	Guinea	Not classified
	pig	
Calcium trifluormethanesulphonate	Guinea	Not classified
	pig	

Respiratory Sensitisation

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

Germ Cell Mutagenicity

derin een wutagementy		
Name	Route	Value
3,3'-Oxybis(ethyleneoxy)bis(propylamine)	In Vitro	Not mutagenic
bis-[4-(2,3-epoxipropoxi)phenyl]propane	In vivo	Not mutagenic
bis-[4-(2,3-epoxipropoxi)phenyl]propane	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Siloxanes and Silicones, di-Me, reaction products with silica	In Vitro	Not mutagenic
2,4,6-tris(dimethylaminomethyl)phenol	In Vitro	Not mutagenic
Calcium trifluormethanesulphonate	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Siloxanes and Silicones, di-Me, reaction products with silica	Not specified.	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
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
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation
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

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

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
3,3'- Oxybis(ethyleneoxy)bis(pr opylamine)	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
bis-[4-(2,3- epoxipropoxi)phenyl]prop ane	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
bis-[4-(2,3- epoxipropoxi)phenyl]prop ane	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
bis-[4-(2,3- epoxipropoxi)phenyl]prop ane	Ingestion	auditory system heart endocrine system hematopoietic system liver eyes kidney and/or	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days

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		bladder				
Siloxanes and Silicones, di-Me, reaction products with silica	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
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 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.

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
2-Propenenitrile, polymer with 1,3- butadiene, carboxy- terminated, polymers with bisphenol A and epichlorhydrin	68610-41-3	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
bis-[4-(2,3- epoxipropoxi)phenyl]pr opane	1675-54-3	Activated sludge	Analogous Compound	3 hours	IC50	>100 mg/l
bis-[4-(2,3- epoxipropoxi)phenyl]pr opane	1675-54-3	Rainbow trout	Estimated	96 hours	LC50	2 mg/l
bis-[4-(2,3- epoxipropoxi)phenyl]pr opane	1675-54-3	Water flea	Estimated	48 hours	EC50	1.8 mg/l

bis-[4-(2,3- epoxipropoxi)phenyl]pr opane	1675-54-3	Green algae	Experimental	72 hours	ErC50	>11 mg/l
bis-[4-(2,3- epoxipropoxi)phenyl]pr opane	1675-54-3	Green algae	Experimental	72 hours	NOEC	4.2 mg/l
bis-[4-(2,3- epoxipropoxi)phenyl]pr opane	1675-54-3	Water flea	Experimental	21 days	NOEC	0.3 mg/l
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Calcium trifluormethanesulphon ate	55120-75-7	Green algae	Estimated	72 hours	EC50	54 mg/l
Calcium trifluormethanesulphon ate	55120-75-7	Rainbow trout	Estimated	96 hours	LC50	>100 mg/l
Calcium trifluormethanesulphon ate	55120-75-7	Water flea	Estimated	48 hours	EC50	>100 mg/l
Calcium trifluormethanesulphon ate	55120-75-7	Green algae	Estimated	72 hours	NOEC	6.4 mg/l
2,4,6- tris(dimethylaminometh yl)phenol	90-72-2	N/A	Experimental	96 hours	LC50	718 mg/l
2,4,6- tris(dimethylaminometh yl)phenol	90-72-2	Common Carp	Experimental	96 hours	LC50	>100 mg/l
2,4,6- tris(dimethylaminometh yl)phenol	90-72-2	Green algae	Experimental	72 hours	EC50	46.7 mg/l
2,4,6- tris(dimethylaminometh yl)phenol	90-72-2	Water flea	Experimental	48 hours	EC50	>100 mg/l
2,4,6- tris(dimethylaminometh yl)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(pro pylamine)	4246-51-9	Experimental Biodegradation	25 days	CO2 evolution	-8 %CO2 evolution/THC O2 evolution	OECD 301B - Modified sturm or CO2
3,3'- Oxybis(ethyleneoxy)bis(pro pylamine)	4246-51-9	Estimated Photolysis		Photolytic half-life (in air)	2.96 hours (t 1/2)	
2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with bisphenol A and epichlorhydrin	68610-41-3	Data not availblinsufficient	N/A	N/A	N/A	N/A
bis-[4-(2,3- epoxipropoxi)phenyl]propa ne	1675-54-3	Experimental Biodegradation	28 days	BOD	5 %BOD/COD	OECD 301F - Manometric respirometry
bis-[4-(2,3- epoxipropoxi)phenyl]propa ne	1675-54-3	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	117 hours (t 1/2)	OECD 111 Hydrolysis func of pH
Siloxanes and Silicones, di- Me, reaction products with silica	67762-90-7	Data not availbl- insufficient	N/A	N/A	N/A	N/A
Calcium trifluormethanesulphonate	55120-75-7	Estimated Biodegradation	28 days	BOD	0 %BOD/ThO D	OECD 301D - Closed bottle test
2,4,6-	90-72-2	Experimental	28 days	BOD	4 %BOD/ThO	OECD 301D - Closed bottle

tris(dimethylaminomethyl)p	Biodegradation		D	test
henol				

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	
2-Propenenitrile, polymer with 1,3-butadiene, carboxy-terminated, polymers with bisphenol A and epichlorhydrin	68610-41-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
bis-[4-(2,3- epoxipropoxi)phenyl]propa ne	1675-54-3	Experimental Bioconcentration		Log Kow	3.242	OECD 117 log Kow HPLC method
Siloxanes and Silicones, di- Me, reaction products with silica	67762-90-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Calcium trifluormethanesulphonate	55120-75-7	Estimated Bioconcentration	35 days	Bioaccumulation factor	0.03	OECD305-Bioconcentration
2,4,6- tris(dimethylaminomethyl) phenol	90-72-2	Experimental Bioconcentration		Log Kow	-0.66	830.7550 Part.Coef Shake Flask

12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
3,3'-	4246-51-9	Modeled Mobility	Koc	1 l/kg	ACD/Labs ChemSketch™
Oxybis(ethyleneoxy)bis(pr		in Soil			
opylamine)					
bis-[4-(2,3-	1675-54-3	Modeled Mobility	Koc	450 l/kg	Episuite TM
epoxipropoxi)phenyl]propa		in Soil		_	
ne					

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. Endocrine disrupting properties

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

12.7. 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 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

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number or ID number	UN2735	UN2735	UN2735
14.2 UN proper shipping name	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)
14.3 Transport hazard class(es)	8	8	8
14.4 Packing group	II	II	II
14.5 Environmental hazards	Not Environmentally Hazardous	Not applicable	Not a Marine Pollutant
14.6 Special precautions for user		Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Marine Transport in bulk according to IMO instruments	No data available.	No data available.	No data available.
Control Temperature	No data available.	No data available.	No data available.
Emergency Temperature	No data available.	No data available.	No data available.
ADR Classification Code	C7	Not applicable.	Not applicable.
IMDG Segregation Code	Not applicable.	Not applicable.	Not applicable.

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

Ingredient	CAS Nbr	<u>Classification</u>	<u>Regulation</u>
bis-[4-(2,3-epoxipropoxi)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 through Annex XVII of REACH regulation to restrictions on the manufacture, placing on the market and use when present in certain dangerous substances, mixtures and articles. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

bis-[4-(2,3-epoxipropoxi)phenyl]propane 1675-54-3

Global inventory status

Contact 3M for more 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. 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.

DIRECTIVE 2012/18/EU

Seveso hazard categories, Annex 1, Part 1 None

Seveso named dangerous substances, Annex 1, Part 2 None

Regulation (EU) No 649/2012

No chemicals listed

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

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Revision information:

Industrial Use of Adhesives: Section 16: Annex information was modified.

Section 2: <125ml Precautionary - Prevention information was modified.

Section 2: <125ml Precautionary - Response information was modified.

CLP: Ingredient table information was modified.

Label: CLP Precautionary - Prevention information was modified.

Label: CLP Precautionary - Response information was modified.

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

Section 04: First Aid - Symptoms and Effects (CLP) information was added.

Section 04: Information on toxicological effects information was modified.

Section 11: Acute Toxicity table information was modified.

Section 11: Germ Cell Mutagenicity 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 - Single Table information was modified.

Section 12: Component ecotoxicity information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12:Bioccumulative potential information information was modified.

Annex

1. Title	
Substance identification	
Exposure Scenario Name	Formulation
Lifecycle Stage	Formulation or re-packing
Contributing activities	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	Batch manufacture of a chemical substance or formulation (including
	polymerisation reactions).
2. Operational conditions and risk mana	
Operating Conditions	Physical state:Liquid.
	General operating conditions:
	Duration of use: 8 hours/day;
	Emission days per year: <= 225 days per year;
Risk management measures	Under the operational conditions described above the following risk management
	measures apply:
	General risk management measures:
	Human health:
	Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for
	specific glove material.;
	Environmental:
	Waste Water treatment - Incineration;
Waste management measures	Do not apply industrial sludge to natural soils;
	Prevent leaks and prevent soil / water pollution caused by leaks;
	, x x, 2, 2,
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.
	PNECS when the identified risk management measures are adopted.

1. Title	
	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 08a -Transfer of substance or mixture (charging and discharging) at non-dedicated facilities 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	Transfers with dedicated controls, including loading, filling, dumping, bagging.
2. Operational conditions and risk mana	
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; Indoor use; Outdoor use;
Risk management measures	Under the operational conditions described above the following risk management measures apply: General risk management measures: Human health: Face shield; 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	No use-specific waste management measures are required for this product. Refer to Section 13 of main SDS for disposal instructions:
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	bis-[4-(2,3-epoxipropoxi)phenyl]propane; EC No. 216-823-5; CAS Nbr 1675-54-3;
Exposure Scenario Name	Industrial Use of Adhesives
Lifecycle Stage	Use at industrial sites
Contributing activities	PROC 08a -Transfer of substance or mixture (charging and discharging) at non- dedicated facilities 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. Application with a wipe. Transfers without dedicated controls, including loading, filling, dumping, bagging.
2. Operational conditions and risk mana	ngement measures
Operating Conditions	Physical state:Liquid. General operating conditions: Duration of use: 8 hours/day; Emission days per year: 220 days/year; Frequency of exposure at workplace [for one worker]: 5 days/week;
Risk management measures	Under the operational conditions described above the following risk management measures apply: General risk management measures: Human health:

	Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for
	specific glove material.;
	Environmental:
	None needed;
Waste management measures	Do not apply industrial sludge to natural soils;
vv aste management measures	Prevent discharge of undissolved substance to or recover from wastewater;
	The value and the same of the
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;
Substance identification	EC No. 202-013-9;
	CAS Nbr 90-72-2;
Exposure Scenario Name	Industrial Use of panel bonding 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 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)
	PROC 10 -Roller application or brushing
	PROC 13 - Treatment of articles by dipping and pouring
	PROC 15 -Use a laboratory reagent
	ERC 05 -Use at industrial site leading to inclusion into/onto article
	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 with a roller or brush. Application of product with
	applicator gun. Mixing or blending of solid or liquid materials. Transfer of substances/mixtures into small containers e.g. tubes, bottles or small reservoirs.
	Transfers with dedicated controls, including loading, filling, dumping, bagging.
	Transfers without dedicated controls, including loading, filling, dumping, bagging.
	Use as a laboratory reagent.
2. Operational conditions and risk mana	
Operating Conditions	Physical state:Liquid.
	General operating conditions:
	Emission days per year: 220 days/year;
	Indoors with good general ventilation;
	Processing Temperature:: <= 40 degree Celsius;
	Task: Transferring Material;
	Duration of use: 4 hours/day;
	T. I. M.
	Task: Mixing;
	Duration of use: 8 hours/day;
	Task: Laboratory use;
	Duration of use: <= 1 hour(s);
Risk management measures	Under the operational conditions described above the following risk management
_	measures apply:
	General risk management measures:
	Human health:
	Face shield;
	Local exhaust ventilation; Protective clothing / Wear suitable protective clothing:
	Protective clothing / Wear suitable protective clothing;

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_	
	Environmental:
	None needed;
	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;
	The following task-specific risk management measures apply in addition to those
	listed above:
	Task: Laboratory use;
	Human Health; Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for
	specific glove material.;
Waste management measures	Send to a municipal sewage treatment plant;
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;
Evnoguya Caanavia Nama	Industrial Use of Structural Adhesives
Exposure Scenario Name Lifecycle Stage	
·	Use at industrial sites
Contributing activities	PROC 04 -Chemical production where opportunity for exposure arises
	PROC 05 -Mixing or blending in batch processes
	PROC 13 -Treatment of articles by dipping and pouring
	ERC 06d -Use of reactive process regulators in polymerisation processes at
Processes, tasks and activities covered	industrial site (inclusion or not into/onto article) Charging material in open systems where significant opportunity for exposure
Processes, tasks and activities covered	arises e.g. charging from open drum. Mixing or blending of solid or liquid
	arises e.g. charging from open druin. Mixing or orending or solid or riquid
2 Operational conditions and risk man-	materials.
2. Operational conditions and risk mans	materials. agement measures
2. Operational conditions and risk mans Operating Conditions	materials. agement measures Physical state:Liquid.
	materials. agement measures Physical state:Liquid. General operating conditions:
	materials. agement measures Physical state:Liquid. General operating conditions: Duration of use: 8 hours/day;
	materials. agement measures Physical state:Liquid. General operating conditions: Duration of use: 8 hours/day; Frequency of exposure at workplace [for one worker]: 5 days/week;
	materials. agement measures Physical state:Liquid. General operating conditions: Duration of use: 8 hours/day;
Operating Conditions	materials. agement measures Physical state:Liquid. General operating conditions: Duration of use: 8 hours/day; Frequency of exposure at workplace [for one worker]: 5 days/week; Indoor use;
	materials. agement measures Physical state:Liquid. General operating conditions: Duration of use: 8 hours/day; Frequency of exposure at workplace [for one worker]: 5 days/week; Indoor use; Under the operational conditions described above the following risk management
Operating Conditions	materials. agement measures Physical state:Liquid. General operating conditions: Duration of use: 8 hours/day; Frequency of exposure at workplace [for one worker]: 5 days/week; Indoor use; Under the operational conditions described above the following risk management measures apply:
Operating Conditions	materials. agement measures Physical state:Liquid. General operating conditions: Duration of use: 8 hours/day; Frequency of exposure at workplace [for one worker]: 5 days/week; Indoor use; Under the operational conditions described above the following risk management measures apply: General risk management measures:
Operating Conditions	materials. agement measures Physical state:Liquid. General operating conditions: Duration of use: 8 hours/day; Frequency of exposure at workplace [for one worker]: 5 days/week; Indoor use; Under the operational conditions described above the following risk management measures apply: General risk management measures: Human health:
Operating Conditions	materials. agement measures Physical state:Liquid. General operating conditions: Duration of use: 8 hours/day; Frequency of exposure at workplace [for one worker]: 5 days/week; Indoor use; Under the operational conditions described above the following risk management measures apply: General risk management measures: Human health: Goggles - Chemical resistant;
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Exposure Scenario Name	Professional Use of panel bonding Adhesives
Lifecycle Stage	Use at industrial sites
Contributing activities	PROC 05 -Mixing or blending in batch processes
Contributing activities	PROC 08a -Transfer of substance or mixture (charging and discharging) at non-
	dedicated facilities
	PROC 08b -Transfer of substance or mixture (charging and discharging) at
	dedicated facilities
	PROC 10 -Roller application or brushing
	PROC 13 -Treatment of articles by dipping and pouring
	ERC 08c -Widespread use leading to inclusion into/onto article (indoor)
Processes, tasks and activities covered	Application of product with a roller or brush. Application of product with
•	applicator gun. Mixing or blending of solid or liquid materials. Transfers with
	dedicated controls, including loading, filling, dumping, bagging. Transfers without
	dedicated controls, including loading, filling, dumping, bagging.
2. Operational conditions and risk man	agement measures
Operating Conditions	Physical state:Liquid.
	General operating conditions:
	Duration of use: 8 hours/day;
	Emission days per year: 220 days/year;
	Indoors with good general ventilation;
	Processing Temperature:: <= 40 degree Celsius;
	Tools Transferring Metarial
	Task: Transferring Material; Indoors with enhanced general ventilation;
	Duration of use: 4 hours/day;
Disk management measures	Under the operational conditions described above the following risk management
Risk management measures	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:
	Municipal Sewage Treatment Plant;
	:
	The following task-specific risk management measures apply in addition to those
	listed above:
	Task: Transferring Material;
	Human Health;
	Protective clothing / Wear suitable protective clothing;
	Face shield;
	Task: Mixing;
	Human Health;
	Protective clothing / Wear suitable protective clothing;
	Face shield;
Waste management	Local exhaust ventilation;
Waste management measures	No use-specific waste management measures are required for this product. Refer
2. Dun 1: 4:	to Section 13 of main SDS for disposal instructions:
3. Prediction of exposure	Tax and a second
Prediction of exposure	Human and environmental exposures are not expected to exceed the DNELs and
	PNECs when the identified risk management measures are adopted.

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 Scotch-Weld EC-2615 B/A Epoxy Adhesive (Part A)	
ANT LIMODO TILLA ANT	
3M Ireland MSDSs are available at www.3M.com	



Safety Data Sheet

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 22/06/2023

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

3M Scotch-Weld EC-2615 B/A Epoxy Adhesive (Part B)

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

Identified uses

Base for 2-Part Adhesive

1.3. Details of the supplier of the safety data sheet

Address: 3M Ireland Limited, The Iveagh Building, The Park, Carrickmines, Dublin 18.

Telephone: +353 1 280 3555 E Mail: tox.uk@mmm.com Website: www.3M.com

1.4. Emergency telephone number

Emergency medical information: 8am-10pm (seven days) contact National Poisons Information Centre, Beaumont Hospital, Dublin 9 DOV2NO, Ireland. Telephone Number: +353 (0)1 809 2166

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

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

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

WARNING.

Symbols

GHS07 (Exclamation mark) |GHS09 (Environment) |

Pictograms





Ingredients:

Ingredient CAS Nbr EC No. % by Wt

bis-[4-(2,3-epoxipropoxi)phenyl]propane 1675-54-3 216-823-5 85 - 87

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:

P280E Wear protective gloves.

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.

Contains 13% of components with unknown hazards to the aquatic environment.

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]
bis-[4-(2,3-epoxipropoxi)phenyl]propane	(CAS-No.) 1675-54-3	85 - 87	Skin Irrit. 2, H315
	(EC-No.) 216-823-5		Eye Irrit. 2, H319
	(REACH-No.) 01-		Skin Sens. 1, H317
	2119456619-26		Aquatic Chronic 2, H411
PROPRIETARY ACRYLIC POLYMER	Trade Secret	7 - 15	Substance not classified as hazardous
Siloxanes and Silicones, di-Me, reaction products with silica	(CAS-No.) 67762-90-7	1 - 5	Substance with a national occupational exposure limit
Titanium dioxide	(CAS-No.) 13463-67-7	< 1	Carc. 2, H351 (inhalation)
	(EC-No.) 236-675-5		, , , , ,
	(REACH-No.) 01-		
	2119489379-17		

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
	,	(C >= 5%) Skin Irrit. 2, H315 (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.

Eve 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 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

SubstanceConditionAldehydes.During combustion.Carbon monoxideDuring combustion.Carbon dioxide.During combustion.Hydrogen ChlorideDuring combustion.Oxides of nitrogen.During combustion.Toxic vapour, gas, particulate.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

For industrial/occupational use only. Not for consumer sale or use. 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.

7.2. Conditions for safe storage including any incompatibilities

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.

IngredientCAS NbrAgencyLimit typeAdditional commentsTitanium dioxide13463-67-7Ireland OELsTWA(Total inhalable dust)(8

TWA(Total inhalable dust)(8 hours):10 mg/m3;TWA(as

respirable dust)(8 hours):4

mg/m3

Silicon dioxide 67762-90-7 Ireland OELs TWA(Total inhalable dust)(8

hours):6 mg/m3;TWA(as respirable dust)(8 hours):2.4

mg/m3

Ireland OELs : Ireland. OELs 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)

Ingredient	Degradation	Population	Human exposure	DNEL
	Product		pattern	
bis-[4-(2,3- epoxipropoxi)phenyl]prop ane		Worker	Dermal, Long-term exposure (8 hours), Systemic effects	8.3 mg/kg bw/d
bis-[4-(2,3- epoxipropoxi)phenyl]prop ane		Worker	Dermal, Short-term exposure, Systemic effects	8.3 mg/kg bw/d
bis-[4-(2,3- epoxipropoxi)phenyl]prop ane		Worker	Inhalation, Long-term exposure (8 hours), Systemic effects	12.3 mg/m³
bis-[4-(2,3- epoxipropoxi)phenyl]prop ane		Worker	Inhalation, Short-term exposure, Systemic effects	12.3 mg/m³

Predicted no effect concentrations (PNEC)

Ingredient	Degradation	Compartment	PNEC
	Product		
bis-[4-(2,3-		Freshwater	0.003 mg/l
epoxipropoxi)phenyl]propa			
ne			
bis-[4-(2,3-		Freshwater sediments	0.5 mg/kg d.w.
epoxipropoxi)phenyl]propa			
ne			
bis-[4-(2,3-		Intermittent releases to water	0.013 mg/l
epoxipropoxi)phenyl]propa			
ne			
bis-[4-(2,3-		Marine water	0.0003 mg/l
epoxipropoxi)phenyl]propa			

ne		
bis-[4-(2,3-	Marine water sediments	0.5 mg/kg d.w.
epoxipropoxi)phenyl]propa		
ne		
bis-[4-(2,3-	Sewage Treatment Plant	10 mg/l
epoxipropoxi)phenyl]propa		
ne		

Recommended monitoring procedures: Information on recommended monitoring procedures can be obtained from Indust. Inspect./Ministry (IE)

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:
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:

MaterialThickness (mm)Breakthrough TimeButyl rubber.No data availableNo data availablePolymer laminateNo data availableNo 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 – Butyl rubber 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 stateLiquid.ColourWhiteOdorMild OdorOdour thresholdNo data available.Melting point/freezing pointNot applicable.Boiling point/boiling range>=248.9 °CFlammability (solid, gas)Not applicable.

Flammable Limits(LEL)

Flammable Limits(UEL)

Not applicable.

Not applicable.

Flash point >=171.1 °C [Test Method:Closed Cup]

Autoignition temperatureNo data available.Decomposition temperatureNo data available.

pH substance/mixture is non-soluble (in water)

Kinematic Viscosity 87,719 mm²/sec

Water solubility Nil

Solubility- non-waterNo data available.Partition coefficient: n-octanol/waterNo data available.Density1.14 g/cm3 [@ 20 °C]Relative density1.14 [Ref Std:WATER=1]

Relative Vapour Density Negligible

9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic CompoundsNo data available.Evaporation rateNot applicable.Molecular weightNo data available.Percent volatileNegligible

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is considered to be non reactive under normal use conditions

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

Amines.

10.6 Hazardous decomposition products

Substance

Condition

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 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 internal hazard assessments.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

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.

Eve 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	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Dermal	Rat	LD50 > 1,600 mg/kg
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Ingestion	Rat	LD50 > 1,000 mg/kg
PROPRIETARY ACRYLIC POLYMER	Dermal		LD50 estimated to be > 5,000 mg/kg
PROPRIETARY ACRYLIC POLYMER	Ingestion	Rat	LD50 > 5,000 mg/kg
Siloxanes and Silicones, di-Me, reaction products with silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Siloxanes and Silicones, di-Me, reaction products with silica	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Rat	LD50 > 5,110 mg/kg

Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation-	Rat	LC50 > 6.82 mg/l
	Dust/Mist		
	(4 hours)		
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Simi Corrosion/Irritation				
Name	Species	Value		
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Rabbit	Mild irritant		
Siloxanes and Silicones, di-Me, reaction products with silica	Rabbit	No significant irritation		
Titanium dioxide	Rabbit	No significant irritation		

Serious Eye Damage/Irritation

Name	Species	Value
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Rabbit	Moderate irritant
Siloxanes and Silicones, di-Me, reaction products with silica	Rabbit	No significant irritation
Titanium dioxide	Rabbit	No significant irritation

Skin Sensitisation

Name	Species	Value
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Human and animal	Sensitising
Siloxanes and Silicones, di-Me, reaction products with silica	Human and animal	Not classified
Titanium dioxide	Human and animal	Not classified

Respiratory Sensitisation

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

Germ Cell Mutagenicity

Name	Route	Value
bis-[4-(2,3-epoxipropoxi)phenyl]propane	In vivo	Not mutagenic
bis-[4-(2,3-epoxipropoxi)phenyl]propane	In Vitro	Some positive data exist, but the data are not sufficient for classification
Siloxanes and Silicones, di-Me, reaction products with silica	In Vitro	Not mutagenic
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Siloxanes and Silicones, di-Me, reaction products with silica	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium dioxide	Inhalation	Rat	Carcinogenic.

Reproductive Toxicity

Reproductive and/or Developmental Effects

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

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- epoxipropoxi)phenyl]prop ane	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
bis-[4-(2,3- epoxipropoxi)phenyl]prop ane	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
bis-[4-(2,3- epoxipropoxi)phenyl]prop ane	Ingestion	auditory system heart endocrine system hematopoietic system liver eyes kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
Siloxanes and Silicones, di-Me, reaction products with silica	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure

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: Eco	logical	l information
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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.

Material	CAS#	Organism	Type	Exposure	Test endpoint	Test result
bis-[4-(2,3- epoxipropoxi)phenyl]pr opane	1675-54-3	Activated sludge	Analogous Compound	3 hours	IC50	>100 mg/l
bis-[4-(2,3- epoxipropoxi)phenyl]pr opane	1675-54-3	Rainbow trout	Estimated	96 hours	LC50	2 mg/l
bis-[4-(2,3- epoxipropoxi)phenyl]pr opane	1675-54-3	Water flea	Estimated	48 hours	EC50	1.8 mg/l
bis-[4-(2,3- epoxipropoxi)phenyl]pr opane	1675-54-3	Green algae	Experimental	72 hours	ErC50	>11 mg/l
bis-[4-(2,3- epoxipropoxi)phenyl]pr opane	1675-54-3	Green algae	Experimental	72 hours	NOEC	4.2 mg/l
bis-[4-(2,3- epoxipropoxi)phenyl]pr opane	1675-54-3	Water flea	Experimental	21 days	NOEC	0.3 mg/l
PROPRIETARY ACRYLIC POLYMER	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Activated sludge	Experimental	3 hours	NOEC	>=1,000 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	EC50	>10,000 mg/l
Titanium dioxide	13463-67-7	Fathead minnow	Experimental	96 hours	LC50	>100 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	NOEC	5,600 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
bis-[4-(2,3- epoxipropoxi)phenyl]propa ne	1675-54-3	Experimental Biodegradation	28 days	BOD	5 %BOD/COD	OECD 301F - Manometric respirometry
bis-[4-(2,3- epoxipropoxi)phenyl]propa ne	1675-54-3	Experimental Hydrolysis		Hydrolytic half-life (pH 7)	117 hours (t 1/2)	OECD 111 Hydrolysis func of pH
PROPRIETARY ACRYLIC POLYMER	Trade Secret	Data not availbl- insufficient	N/A	N/A	N/A	N/A
Siloxanes and Silicones, di- Me, reaction products with silica	67762-90-7	Data not availbl- insufficient	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	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- epoxipropoxi)phenyl]propa ne	1675-54-3	Experimental Bioconcentration		Log Kow	3.242	OECD 117 log Kow HPLC method
PROPRIETARY ACRYLIC POLYMER	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Siloxanes and Silicones, di- Me, reaction products with silica	67762-90-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Experimental BCF - Fish	42 days	Bioaccumulation factor	9.6	

12.4. Mobility in soil

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

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. Endocrine disrupting properties

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

12.7. 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. 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

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number or ID number	UN3082	UN3082	UN3082
14.2 UN proper shipping name		ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(EPOXY RESIN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(EPOXY RESIN)
14.3 Transport hazard class(es)	9	9	9
14.4 Packing group	III	III	III
14.5 Environmental hazards	Environmentally Hazardous	Not applicable	Marine Pollutant
14.6 Special precautions for user	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.
14.7 Marine Transport in bulk according to IMO instruments	No data available.	No data available.	No data available.
Control Temperature	No data available.	No data available.	No data available.
Emergency Temperature	No data available.	No data available.	No data available.
ADR Classification Code	M6	Not applicable.	Not applicable.
IMDG Segregation Code	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>	CAS Nbr	<u>Classification</u>	Regulation
bis-[4-(2,3-epoxipropoxi)phenyl]propane	1675-54-3	Gr. 3: Not classifiable	International Agency
			for Research on Cancer
Titanium dioxide	13463-67-7	Grp. 2B: Possible human	International Agency
		carc.	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 through Annex XVII of REACH regulation to restrictions on the manufacture, placing on the market and use when present in certain dangerous substances, mixtures and articles. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

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

1675-54-3

Global inventory status

Contact 3M for more 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 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.

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Seveso hazard categories, Annex 1, Part 1

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

Seveso named dangerous substances, Annex 1, Part 2 None

Regulation (EU) No 649/2012

No chemicals listed

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

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H351i	Suspected of causing cancer by inhalation.
H411	Toxic to aquatic life with long lasting effects.

Revision information:

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

Section 12: Component ecotoxicity information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12:Bioccumulative potential information information was modified.

Annex

1. Title		
Substance identification	bis-[4-(2,3-epoxipropoxi)phenyl]propane; EC No. 216-823-5; CAS Nbr 1675-54-3;	
	CAS NOT 10/3-34-3,	
Exposure Scenario Name	Formulation	
Lifecycle Stage	Formulation or re-packing	
Contributing activities	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	Batch manufacture of a chemical substance or formulation (including	
	polymerisation reactions).	
2. Operational conditions and risk management measures		
Operating Conditions	Physical state:Liquid.	
	General operating conditions:	
	Duration of use: 8 hours/day;	
	Emission days per year: <= 225 days per year;	
Risk management measures	Under the operational conditions described above the following risk management	
	measures apply:	
	General risk management measures: Human health:	
	Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for specific glove material.; Environmental:	
	Waste Water treatment - Incineration;	
Waste management measures	Do not apply industrial sludge to natural soils; Prevent leaks and prevent soil / water pollution caused by leaks;	
3. Prediction of exposure		
	II	
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	bis-[4-(2,3-epoxipropoxi)phenyl]propane; EC No. 216-823-5; CAS Nbr 1675-54-3;	
Exposure Scenario Name	Industrial Use of Adhesives	
Lifecycle Stage	Use at industrial sites	
Contributing activities	PROC 08a -Transfer of substance or mixture (charging and discharging) at non-dedicated facilities 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. Application with a wipe. Transfers without dedicated controls, including loading, filling, dumping, bagging.	
2. Operational conditions and risk management measures		
Operating Conditions	Physical state: Liquid. General operating conditions: Duration of use: 8 hours/day; Emission days per year: 220 days/year; Frequency of exposure at workplace [for one worker]: 5 days/week;	
Risk management measures	Under the operational conditions described above the following risk management measures apply: General risk management measures:	

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	Human health: Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for specific glove material.; Environmental: None needed;
Waste management measures	Do not apply industrial sludge to natural soils; Prevent discharge of undissolved substance to or recover from wastewater;
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.

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.

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