

### 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™ Epoxy Adhesive 2214 Regular

#### **Product Identification Numbers**

62-2214-2930-1 62-2214-6530-5

7000000811 7000046356

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

### **Identified uses**

Product

#### 1.3. Details of the supplier of the safety data sheet

Address: 3M Ireland Limited, 70 SIR JOHN ROGERSON'S QUAY, D02R296 DUBLIN 2

**Telephone:** +353 1 280 3555

E Mail: ner-productstewardship@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

Carcinogenicity, Category 2 - Carc. 2; H351

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) |GHS08 (Health Hazard) |GHS09 (Environment) |

### **Pictograms**







### **Ingredients:**

Ingredient	CAS Nbr	EC No.	% by Wt
bis-[4-(2,3-epoxipropoxi)phenyl]propane	1675-54-3	216-823-5	30 - 40
2,2'-[Oxybis[(methyl-2,1-ethanediyl)oxymethylene]]bisoxirane	41638-13-5		1 - 5
monuron (ISO)	150-68-5	205-766-1	< 2.5
Rxn mass: 2-(\{[1-chloro-3-(\{4-[methoxy(oxiran-2yl)methyl]cyclohexyl\}methoxy)propan-2-yl]oxy\}methyl)oxirane & 2,2'-[cis-cyclohexane-1,4diylbis(methyleneoxymethylene)]bisoxirane & 2,2'-[trans-cyclohexane-1,4diylbis(methyleneoxymethylene)]bisoxirane	<b>1</b> -	946-427-4	< 1

### **HAZARD STATEMENTS:**

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.

H411 Toxic to aquatic life with long lasting effects.

#### PRECAUTIONARY STATEMENTS

**Prevention:** 

P273 Avoid release to the environment.

P280E Wear protective gloves.

P280K Wear protective gloves and respiratory protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

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

P391 Collect spillage.

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

### Notes on labelling

Not classified as self-heating mixture per test data. The epoxy resin is resistant to reaction with water and the aluminum is embedded in the resin so Water-react. 2, H261 is not applicable.

### 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 (EC-No.) 216-823-5 (REACH-No.) 01- 2119456619-26	30 - 40	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Aluminium	(CAS-No.) 7429-90-5 (EC-No.) 231-072-3 (REACH-No.) 01- 2119529243-45	15 - 40	Flam. Sol. 1, H228 Water-react. 2, H261 Nota T
2,2'-[Oxybis[(methyl-2,1-ethanediyl)oxymethylene]]bisoxirane	(CAS-No.) 41638-13-5	1 - 5	Eye Irrit. 2, H319 Skin Sens. 1B, H317 STOT SE 3, H335 Aquatic Chronic 3, H412
Synthetic Elastomer	Trade Secret	1 - 5	Substance not classified as hazardous
Dicyandiamide	(CAS-No.) 461-58-5 (EC-No.) 207-312-8 (REACH-No.) 01- 2119474914-28	1 - 5	Substance not classified as hazardous
Siloxanes and Silicones, di-Me, reaction products with silica	(CAS-No.) 67762-90-7	1 - 5	Substance not classified as hazardous
monuron (ISO)	(CAS-No.) 150-68-5 (EC-No.) 205-766-1 (REACH-No.) 01- 2120768963-37	< 2.5	Acute Tox. 4, H302 Carc. 2, H351 Aquatic Acute 1, H400,M=10 Aquatic Chronic 1, H410,M=10
Rxn mass: 2-(\{[1-chloro-3-(\{4-[methoxy(oxiran-2-yl)methyl]cyclohexyl\}methoxy)propan-2-yl]oxy\}methyl)oxirane & 2,2'-[cis-cyclohexane-1,4-diylbis(methyleneoxymethylene)]bisoxira ne & 2,2'-[trans-cyclohexane-1,4-diylbis(methyleneoxymethylene)]bisoxira		< 1	Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1, H317 Muta. 2, H341 Aquatic Chronic 3, H412

Any entry in the Identifier(s) column that begins with the numbers 6, 7, 8, or 9 are a Provisional List Number provided by ECHA pending publication of the official EC Inventory Number for the substance.

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.

### Eye contact

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

### If swallowed

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

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

The most important symptoms and effects based on the 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

Closed containers exposed to heat from fire may build pressure and explode.

### **Hazardous Decomposition or By-Products**

SubstanceConditionAldehydes.During combustion.ChlorineDuring combustion.Carbon monoxideDuring combustion.

Carbon dioxide.During combustion.Hydrogen ChlorideDuring combustion.Hydrogen cyanide.During combustion.AmmoniaDuring combustion.Oxides of nitrogen.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

Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS. Evacuate area. Ventilate the area with fresh air.

### 6.2. Environmental precautions

Avoid release to the environment.

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

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

#### 6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

### **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

For industrial/occupational use only. Not for consumer sale or use. Do not use in a confined area with minimal air exchange. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

### 7.2. Conditions for safe storage including any incompatibilities

Keep container tightly closed. Keep cool. Protect from sunlight. Store away from heat. Store away from acids. Store away from strong bases. Store away from oxidising agents. Store in a dry place. 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.

Ingredient CAS Nbr Agency Limit type Additional comments

monuron (ISO) 150-68-5 Manufacturer TWA(Inhalable aerosol)(8

determined hours):1 mg/m3

Aluminium 7429-90-5 Ireland OELs TWA(respirable fraction)(8

hours):1 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 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 ne		Marine water	0.0003 mg/l
bis-[4-(2,3- epoxipropoxi)phenyl]propa ne		Marine water sediments	0.5 mg/kg d.w.
bis-[4-(2,3- epoxipropoxi)phenyl]propa ne		Sewage Treatment Plant	10 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. Provide appropriate local exhaust when product is heated.

### 8.2.2. Personal protective equipment (PPE)

### Eye/face protection

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

Safety glasses with side shields.

Indirect vented goggles.

Applicable Norms/Standards

Use eye protection conforming to EN 166

### Skin/hand protection

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

**Breakthrough Time** Material Thickness (mm) Polymer laminate No data available No data available

Applicable Norms/Standards Use gloves tested to EN 374

If this product is used in a manner that presents a higher potential for exposure (e.g., spraying, high splash potential, etc.), then use of a protective apron may be necessary. See recommended glove material(s) for determining appropriate apron material(s). If a glove material is not available as an apron, polymer laminate is a suitable option.

### 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 Half facepiece or full facepiece supplied-air respirator

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

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

into mation on basic physical and enemical properties		
Physical state	Solid.	
Specific Physical Form:	Paste	
Colour	Grey	
Odor	Mild Epoxy	
Odour threshold	No data available.	
Melting point/freezing point	Not applicable.	
Boiling point/boiling range	>=260 °C	
Flammability	Not applicable.	
Flammable Limits(LEL)	No data available.	
Flammable Limits(UEL)	No data available.	
Flash point	248.9 °C [Test Method:Closed Cup]	
Autoignition temperature	No data available.	
Decomposition temperature	No data available.	
pH	substance/mixture is non-soluble (in water)	
Kinematic Viscosity	694,444 mm <sup>2</sup> /sec	
Water solubility	Nil	
Solubility- non-water	No data available.	
Partition coefficient: n-octanol/water	No data available.	
Vapour pressure	No data available.	
Density	1.44 g/ml [Ref Std:WATER=1]	
Relative density	1.44 [ <i>Ref Std</i> :WATER=1]	
Relative Vapour Density	No data available.	
Particle Characteristics	Not applicable.	

### 9.2. Other information

### 9.2.2 Other safety characteristics

EU Volatile Organic CompoundsNo data available.Evaporation rateNegligibleMolecular weightNo data available.

### **SECTION 10: Stability and reactivity**

### 10.1 Reactivity

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

### 10.2 Chemical stability

Stable.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation may occur.

### 10.4 Conditions to avoid

Heat.

Sparks and/or flames.

Avoid curing large quantities of material to prevent a premature reaction (exotherm) with production of intense heat and smoke.

### 10.5 Incompatible materials

Strong oxidising agents.

### 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.

### Eye contact

Moderate eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

#### Ingestion

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

### **Toxicological Data**

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

### **Acute Toxicity**

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Aluminium	Dermal		LD50 estimated to be > 5,000 mg/kg
Aluminium	Ingestion		LD50 estimated to be > 5,000 mg/kg
Aluminium	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.888 mg/l
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
Dicyandiamide	Dermal	Rabbit	LD50 > 10,000 mg/kg
2,2'-[Oxybis[(methyl-2,1-ethanediyl)oxymethylene]]bisoxirane	Dermal	Rabbit	LD50 > 2,000 mg/kg
Dicyandiamide	Ingestion	Rat	LD50 > 30,000 mg/kg

2,2'-[Oxybis[(methyl-2,1-ethanediyl)oxymethylene]]bisoxirane	Ingestion	Rat	LD50 > 2,000 mg/kg
Synthetic Elastomer	Dermal	Rabbit	LD50 > 15,000 mg/kg
Synthetic Elastomer	Ingestion	Rat	LD50 > 30,000 mg/kg
monuron (ISO)	Dermal	Rabbit	LD50 > 2,500 mg/kg
monuron (ISO)	Ingestion	Rat	LD50 1,480 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
Rxn mass: 2-(\{[1-chloro-3-(\\{4-[methoxy(oxiran-2-yl)methyl]cyclohexyl\}methoxy)propan-2-yl]oxy\}methyl)oxirane & 2,2'-[cis-cyclohexane-1,4-diylbis(methyleneoxymethylene)]bisoxirane & 2,2'-[trans-cyclohexane-1,4-diylbis(methyleneoxymethylene)]bisoxirane	Ingestion	Rat	LD50 1,000 mg/kg

ATE = acute toxicity estimate

### Skin Corrosion/Irritation

Name	Species	Value
Aluminium	Rabbit	No significant irritation
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Rabbit	Mild irritant
Dicyandiamide	Human	Minimal irritation
	and animal	
2,2'-[Oxybis[(methyl-2,1-ethanediyl)oxymethylene]]bisoxirane	Rabbit	No significant irritation
Synthetic Elastomer	Professio	No significant irritation
	nal	
	judgemen	
(700)	t,	NOTE: See
monuron (ISO)	similar	Mild irritant
	compoun ds	
Siloxanes and Silicones, di-Me, reaction products with silica	Rabbit	No significant irritation
Rxn mass: 2-(\{[1-chloro-3-(\{4-[methoxy(oxiran-2-	In vitro	Irritant
yl)methyl]cyclohexyl\}methoxy)propan-2-yl]oxy\}methyl)oxirane & 2,2'-[cis-	data	
cyclohexane-1,4-diylbis(methyleneoxymethylene)]bisoxirane & 2,2'-[trans-		
cyclohexane-1,4-diylbis(methyleneoxymethylene)]bisoxirane		

**Serious Eye Damage/Irritation** 

Name	Species	Value
Aluminium	Rabbit	No significant irritation
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Rabbit	Moderate irritant
Dicyandiamide	Professio	Mild irritant
	nal	
	judgemen	
	t	
2,2'-[Oxybis[(methyl-2,1-ethanediyl)oxymethylene]]bisoxirane	Rabbit	Moderate irritant
Synthetic Elastomer	Professio	No significant irritation
	nal	
	judgemen	
(700)	t	
monuron (ISO)	similar	Moderate irritant
	compoun	
07 107 17 17 17 17 17	ds	X
Siloxanes and Silicones, di-Me, reaction products with silica	Rabbit	No significant irritation
Rxn mass: 2-(\{[1-chloro-3-(\{4-[methoxy(oxiran-2-	In vitro	No significant irritation
yl)methyl]cyclohexyl\}methoxy)propan-2-yl]oxy\}methyl)oxirane & 2,2'-[cis-	data	
cyclohexane-1,4-diylbis(methyleneoxymethylene)]bisoxirane & 2,2'-[trans-		
cyclohexane-1,4-diylbis(methyleneoxymethylene)]bisoxirane		

### **Skin Sensitisation**

**	~ .	
Name	Species	Value

Aluminium	Guinea	Not classified
	pıg	
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Human	Sensitising
	and	
	animal	
Dicyandiamide	Guinea	Not classified
	pig	
2,2'-[Oxybis[(methyl-2,1-ethanediyl)oxymethylene]]bisoxirane	Guinea	Sensitising
	pig	
Siloxanes and Silicones, di-Me, reaction products with silica	Human	Not classified
	and	
	animal	
Rxn mass: 2-(\{[1-chloro-3-(\{4-[methoxy(oxiran-2-	similar	Sensitising
yl)methyl]cyclohexyl\}methoxy)propan-2-yl]oxy\}methyl)oxirane & 2,2'-[cis-	compoun	
cyclohexane-1,4-diylbis(methyleneoxymethylene)]bisoxirane & 2,2'-[trans-	ds	
cyclohexane-1,4-diylbis(methyleneoxymethylene)]bisoxirane		

**Respiratory Sensitisation** 

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

**Germ Cell Mutagenicity** 

Name	Route	Value
Aluminium	In Vitro	Not mytogonio
	+	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
Dicyandiamide	In Vitro	Not mutagenic
2,2'-[Oxybis[(methyl-2,1-ethanediyl)oxymethylene]]bisoxirane	In Vitro	Some positive data exist, but the data are not sufficient for classification
monuron (ISO)	In Vitro	Some positive data exist, but the data are not sufficient for classification
monuron (ISO)	In vivo	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
Rxn mass: 2-(\{[1-chloro-3-(\{4-[methoxy(oxiran-2-yl)methyl]cyclohexyl\}methoxy)propan-2-yl]oxy\}methyl)oxirane & 2,2'-[cis-cyclohexane-1,4-diylbis(methyleneoxymethylene)]bisoxirane & 2,2'-[trans-cyclohexane-1,4-diylbis(methyleneoxymethylene)]bisoxirane	In Vitro	Mutagenic; structurally related to germ cell mutagens

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
Dicyandiamide	Ingestion	Rat	Not carcinogenic
monuron (ISO)	Ingestion	Rat	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
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

Page: 11 of 20

bis-[4-(2,3-epoxipropoxi)phenyl]propane	Dermal	Not classified for development	Rabbit	NOAEL 300	during
bis-[4-(2,3-epoxipropoxi)phenyl]propane	Ingestion	Not classified for development	Rat	mg/kg/day NOAEL 750 mg/kg/day	organogenesis 2 generation
Dicyandiamide	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
Dicyandiamide	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	44 days
Dicyandiamide	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating & during gestation
monuron (ISO)	Ingestion	Not classified for development	Mouse	LOAEL 215 mg/kg/day	during gestation
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
2,2'-[Oxybis[(methyl-2,1-ethanediyl)oxymethylene]] bisoxirane	Inhalation	respiratory irritation	May cause respiratory irritation	Rat	NOAEL not available	
monuron (ISO)	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar compoun ds	NOAEL Not available	
monuron (ISO)	Ingestion	methemoglobinemi a	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL Not available	not applicable
Rxn mass: 2-(\{[1-chloro-3-(\{4-[methoxy(oxiran-2-yl)methyl]cyclohexyl\}met hoxy)propan-2-yl]oxy\}methyl)oxirane & 2,2'-[cis-cyclohexane-1,4-diylbis(methyleneoxymeth ylene)]bisoxirane & 2,2'-[trans-cyclohexane-1,4-diylbis(methyleneoxymeth ylene)]bisoxirane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure** 

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Aluminium	Inhalation	nervous system   respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
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

		bladder				
Dicyandiamide	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 6,822 mg/kg/day	13 weeks
monuron (ISO)	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Mouse	LOAEL 800 mg/kg/day	103 weeks
monuron (ISO)	Ingestion	kidney and/or bladder	Not classified	Rat	LOAEL 65 mg/kg/day	103 weeks
monuron (ISO)	Ingestion	immune system	Not classified	Rat	LOAEL 520 mg/kg/day	13 weeks
Siloxanes and Silicones, di-Me, reaction products with silica	Inhalation	respiratory system   silicosis	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: 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
Aluminium	7429-90-5	Fish	Experimental	96 hours	No tox obs at lmt of water sol	>100 mg/l
Aluminium	7429-90-5	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	>100 mg/l
Aluminium	7429-90-5	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
Aluminium	7429-90-5	Green algae	Experimental	72 hours	No tox obs at lmt of water sol	100 mg/l
Aluminium	7429-90-5	Water flea	Experimental	21 days	NOEC	0.076 mg/l
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-	1675-54-3	Water flea	Experimental	21 days	NOEC	0.3 mg/l
epoxipropoxi)phenyl]pr	10/3-34-3	water fiea	Experimental	21 days	NOEC	0.5 mg/1
opane						
Dicyandiamide	461-58-5	Bluegill	Experimental	96 hours	LC50	>1,000 mg/l
Dicyandiamide	461-58-5	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
Dicyandiamide	461-58-5	Water flea	Experimental	48 hours	EC50	3,177 mg/l
Dicyandiamide	461-58-5	Green algae	Experimental	72 hours	NOEC	310 mg/l
Dicyandiamide	461-58-5	Water flea	Experimental	21 days	NOEC	25 mg/l
Dicyandiamide	461-58-5	Redworm	Experimental	14 days	LC50	>3,200 mg/kg (Dry Weight)
2,2'-[Oxybis[(methyl- 2,1- ethanediyl)oxymethyle ne]]bisoxirane	41638-13-5	Golden Orfe	Experimental	96 hours	LC50	67 mg/l
	41638-13-5	Water flea	Experimental	48 hours	EC50	90 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
Synthetic Elastomer	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
monuron (ISO)	150-68-5	Algae or other aquatic plants	Experimental	24 hours	EC50	0.079 mg/l
monuron (ISO)	150-68-5	Fish	Experimental	96 hours	LC50	3.3 mg/l
monuron (ISO)	150-68-5	Water flea	Experimental	26 hours	EC50	106 mg/l
monuron (ISO)	150-68-5	Green algae	Experimental	96 hours	NOEC	0.01 mg/l
Rxn mass: 2-(\{[1-chloro-3-(\{4-[methoxy(oxiran-2-yl)methyl]cyclohexyl\} methoxy)propan-2-yl]oxy\} methyl)oxirane & 2,2'-[cis-cyclohexane-1,4-diylbis(methyleneoxym ethylene)]bisoxirane & 2,2'-[trans-cyclohexane-1,4-diylbis(methyleneoxym ethylene)]bisoxirane Rxn mass: 2-(\{[1-chloro-3-(\{4-[methoxy(oxiran-2-yl)methyl]cyclohexyl\} methoxy)propan-2-yl]oxy\} methyl)oxirane & 2,2'-[cis-cyclohexane-1,4-diylbis(methyleneoxym ethylene)]bisoxirane & 2,2'-[trans-cyclohexane-1,4-diylbis(methyleneoxym ethylene)]bisoxirane & 2,2'-[trans-cyclohexane-1,4-diylbis(methyleneoxym ethyleneoxym ethyleneoxym ethyleneoxym ethyleneoxym ethyleneoxym ethyleneoxym ethyleneoxym ethyleneoxym ethyleneoxym	946-427-4	Water flea	Experimental	72 hours	EC50	38 mg/l 71 mg/l
ethylene)]bisoxirane Rxn mass: 2-(\{[1-	946-427-4	Green algae	Experimental	72 hours	EC10	18 mg/l
chloro-3-(\{4-	<i>&gt;</i> -τ∪-τ∠ / <del>- '1</del>	Green aigae	Experimental	/2 HOUIS	LCIU	10 1118/1

[methoxy(oxiran-2-yl)methyl]cyclohexyl\}			
methoxy)propan-2-			
yl]oxy\}methyl)oxirane			
& 2,2'-[cis-			
cyclohexane-1,4-			
diylbis(methyleneoxym			
ethylene)]bisoxirane &			
2,2'-[trans-			
cyclohexane-1,4-			
diylbis(methyleneoxym			
ethylene)]bisoxirane			

### 12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Aluminium	7429-90-5	Data not availbl- insufficient	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
Dicyandiamide	461-58-5	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	0 %removal of DOC	OECD 301E - Modif. OECD Screen
Dicyandiamide	461-58-5	Experimental Aquatic Inherent Biodegrad.	14 days	Dissolv. Organic Carbon Deplet	0 %removal of DOC	OECD 302B Zahn- Wellens/EVPA
Dicyandiamide	461-58-5	Experimental Biodegradation	61 days	CO2 evolution	1.1 %CO2 evolution/THC O2 evolution	OECD 309 Aero Sim Biod Water
2,2'-[Oxybis[(methyl-2,1-ethanediyl)oxymethylene]]b isoxirane	41638-13-5	Experimental Biodegradation	28 days	CO2 evolution	27 %CO2 evolution/THC O2 evolution	OECD 301B - Modified sturm or CO2
Siloxanes and Silicones, di- Me, reaction products with silica	67762-90-7	Data not availbl- insufficient	N/A	N/A	N/A	N/A
Synthetic Elastomer	Trade Secret	Data not availbl- insufficient	N/A	N/A	N/A	N/A
monuron (ISO)	150-68-5	Modeled Biodegradation	28 days	BOD	2.1 %BOD/Th OD	OECD 301C - MITI test (I)
Rxn mass: 2-(\{[1-chloro-3-(\{4-[methoxy(oxiran-2-yl)methyl]cyclohexyl\}meth oxy)propan-2-yl]oxy\}methyl)oxirane & 2,2'-[cis-cyclohexane-1,4-diylbis(methyleneoxymethylene)]bisoxirane & 2,2'-[trans-cyclohexane-1,4-diylbis(methyleneoxymethylene)]bisoxirane	946-427-4	Experimental Biodegradation	28 days	CO2 evolution	1.3 %CO2 evolution/THC O2 evolution	OECD 301B - Modified sturm or CO2

### 12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Aluminium	7429-90-5	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
Dicyandiamide	461-58-5	Experimental BCF - Fish	42 days	Bioaccumulation factor	<=3.1	OECD305-Bioconcentration
Dicyandiamide	461-58-5	Experimental		Log Kow	-0.52	OECD 107 log Kow shke

Page: 15 of 20

		Bioconcentration				flsk mtd
2,2'-[Oxybis[(methyl-2,1-ethanediyl)oxymethylene]] bisoxirane	41638-13-5	Estimated Bioconcentration		Bioaccumulation factor	2	
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
Synthetic Elastomer	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
monuron (ISO)	150-68-5	Experimental Bioconcentration		Log Kow	1.94	Catalogic <sup>TM</sup>
Rxn mass: 2-(\{[1-chloro-3-(\{4-[methoxy(oxiran-2-yl)methyl]cyclohexyl\}met hoxy)propan-2-yl]oxy\}methyl)oxirane & 2,2'-[cis-cyclohexane-1,4-diylbis(methyleneoxymeth ylene)]bisoxirane & 2,2'-[trans-cyclohexane-1,4-diylbis(methyleneoxymeth ylene)]bisoxirane	946-427-4	Experimental Bioconcentration		Log Kow	2.05	

### 12.4. Mobility in soil

Material	Cas No.	Test type	Study Type	Test result	Protocol
bis-[4-(2,3-epoxipropoxi)phenyl]propa	1675-54-3	Modeled Mobility in Soil	Koc	450 l/kg	Episuite <sup>TM</sup>
ne					
Dicyandiamide	461-58-5	Modeled Mobility in Soil	Koc	9 l/kg	Episuite <sup>TM</sup>
monuron (ISO)	150-68-5	Modeled Mobility in Soil	Koc	240 l/kg	ACD/Labs ChemSketch™

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

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

### 12.6. 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 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	UN3077	UN3077	UN3077
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(EPOXY RESIN; PARA-CHLOROPHENYL- DIMETHYLUREA)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(EPOXY RESIN; PARA- CHLOROPHENYL- DIMETHYLUREA)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.(EPOXY RESIN; PARA-CHLOROPHENYL- DIMETHYLUREA)
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.
<b>Emergency Temperature</b>	No data available.	No data available.	No data available.
ADR Classification Code	M7	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
monuron (ISO)	150-68-5	Carc. 2	Regulation (EC) No.
			1272/2008, Table 3.1
monuron (ISO)	150-68-5	Gr. 3: Not classifiable	International Agency
			for Research on Cancer
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.

IngredientCAS Nbrbis-[4-(2,3-epoxipropoxi)phenyl]propane1675-54-3

Restriction status: listed in REACH Annex XVII

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

### 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 Japan Chemical Substance Control Law. 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.

### **DIRECTIVE 2012/18/EU**

Seveso hazard categories, Annex 1, Part 1

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

Seveso named dangerous substances, Annex 1, Part 2 None

### Regulation (EU) No 649/2012

Chemical	Identifier(s)	Annex I
monuron (ISO)	150-68-5	Part 1

### 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

H228	Flammable solid.
H261	In contact with water releases flammable gas.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

### **Revision information:**

Section 8: Personal Protection - Skin/body information information was deleted.

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

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1. Title	
Substance identification	bis-[4-(2,3-epoxipropoxi)phenyl]propane;
Sussemed identification	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 10 -Roller application or brushing
	PROC 13 -Treatment of articles by dipping and pouring
	ERC 05 -Use at industrial site leading to inclusion into/onto article
Processes, tasks and activities covered	Application of product with a roller or brush. Application of product with
	applicator gun. Transfers without dedicated controls, including loading, filling, dumping, bagging.
2 Operational conditions and risk mans	
2. Operational conditions and risk management measures  Operating Conditions Physical state: Liquid.	
Operating Conditions	General operating conditions:
	Application Temperature:: <= 40 degree Celsius;
	Indoors with good general ventilation;
	Task: PROC08a;
	Duration of use: 4 hours/day;
	Task: PROC10;
	Duration of use: 8 hours/day;
	Task: PROC13;
	Duration of use: 4 hours/day;
Risk management measures	Under the operational conditions described above the following risk management
	measures apply:
	General risk management measures:
	Human health:
	Goggles - Chemical resistant;
	Local exhaust ventilation; Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for
	specific glove material.;
	Environmental:
	None needed;
	Total Boards,
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.

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 Ireland MSDSs are available at www.3M.com