

## 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<sup>™</sup> Scotch-Weld<sup>™</sup> Epoxy Structural Adhesive DP-100 KIT

#### Product Identification Numbers

FS-9100-5234-9 UU-0101-3126-4

7000080310 7100200484

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

**Identified uses** Structural adhesive.

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

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

## 1.4. Emergency telephone number

+44 (0)1344 858 000

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

29-8950-7, 29-8932-5

## **TRANSPORTATION INFORMATION**

FS-9100-5234-9

Not hazardous for transportation

UU-0101-3126-4

#### Component 1

ADR/RID: UN3267, CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S., LIMITEDQUANTITY, (TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL ), 8., III, (E), ADR Classification Code: C7. IMDG-CODE: UN3267, CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S., (TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL ), 8., III, IMDG-Code segregation code: 18- ALKALIS, LIMITED QUANTITY, EMS: FA,SB. ICAO/IATA: UN3267, CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S., (TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL ), 8., III.

#### **Component 2**

ADR/RID: UN3082, NOT RESTRICTED AS PER SPECIAL PROVISION 375, ENVIRONMENTALLY HAZARDOUS SUBSTANCE EXEMPTION, (LIQUID EPOXY RESIN), III, --. IMDG-CODE: UN3082, NOT RESTRICTED AS PER IMDG CODE 2.10.2.7, MARINE POLLUTANT EXCEPTION, (LIQUID EPOXY RESIN), III, IMDG-Code segregation code: NONE, EMS: --. ICAO/IATA: UN3082, NOT RESTRICTED AS PER SPECIAL PROVISION A197, ENVIRONMENTALLY HAZARDOUS SUBSTANCE EXCEPTION, (LIQUID EPOXY RESIN), III.

## **KIT LABEL**

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

#### **CLASSIFICATION:**

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

For full text of H phrases, see Section 16.

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

SIGNAL WORD DANGER.

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



Contains:

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane; Reaction products of pentaerythritol, propoxylated and 1-chloro-2,3-epoxypropane with hydrogen sulphide; Tris(2,4,6-dimethylaminomonomethyl)phenol

#### HAZARD STATEMENTS:

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

H411 Toxic to aquatic life with long lasting effects.

#### **PRECAUTIONARY STATEMENTS**

Prevention: P260A P280D	Do not breathe vapours. Wear protective gloves, protective clothing, and eye/face protection.
Response:	
P303 + P361 + P353A	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 P333 + P313	Immediately call a POISON CENTRE or doctor/physician. If skin irritation or rash occurs: Get medical advice/attention.

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

<=125 ml Hazard statements	
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

#### <=125 ml Precautionary statements

<b>Prevention:</b> P260A P280D	Do not breathe vapours. Wear protective gloves, protective clothing, and eye/face protection.
Response:	
P303 + P361 + P353A	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTRE or doctor/physician.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.

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

#### **Revision information:**

Kit: Component document group number(s) information was modified. Label: CLP Ingredients - kit components information was modified. Section 1: Product identification numbers information was modified. Section 01: SAP Material Numbers information was modified.



## Safety Data Sheet

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Document group:	29-8932-5	Version number:	11.00
Revision date:	03/09/2019	Supersedes date:	05/03/2019
Transportation version	number: 1.00 (01/09/2011)	-	

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

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

#### 1.1. Product identifier

3M<sup>TM</sup> Scotch-Weld<sup>TM</sup> Epoxy Structural Adhesive DP-100: Part A

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

## Identified uses

Structural adhesive.

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

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

#### 1.4. Emergency telephone number

+44 (0)1344 858 000

## **SECTION 2: Hazard identification**

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

#### **CLASSIFICATION:**

Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318 Skin Corrosion/ Irritation, Category 1C - Skin Corr. 1C; H314 Skin Sensitization, Category 1B - Skin Sens. 1B; 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
alpha-Hydro-omega-hydroxy-pol ethanediyl)], ether with 2,2-bis(hj propanediol (4:1), 2-hydroxy-3-n	ydroxymethyl)-1,3-	72244-98-5	701-196-7	80 - 100
2,4,6-Tris(dimethylaminomethyl)		90-72-2	202-013-9	5 - 10
HAZARD STATEMENTS:				
H314 H317	Causes severe skin May cause an aller	burns and eye damage. gic skin reaction.		
H412	Harmful to aquatic	life with long lasting effects.		
PRECAUTIONARY STATEME	ENTS			
Prevention: P260A P280D	Do not breathe vap Wear protective glo	ours. oves, protective clothing, and eye	/face protection.	
<b>Response:</b> P303 + P361 + P353A	IF ON SKIN (or ha	air): Take off immediately all con	taminated clothing. Rins	e skin with water or
P305 + P351 + P338	IF IN EYES: Rin	se cautiously with water for sever do. Continue rinsing.	ral minutes. Remove c	ontact lenses, if
P310	Immediately call a	POISON CENTRE or doctor/phy	vsician.	
Disposal:				
P501	Dispose of contents regulations.	s/container in accordance with ap	plicable local/regional/n	ational/international
For containers not exceeding 125	5 ml the following Ha	azard and Precautionary staten	nents may be used:	
<=125 ml Hazard statements H314 H317	Causes severe skin May cause an aller	burns and eye damage.		
H412		life with long lasting effects.		
<=125 ml Precautionary stateme	ents			
Prevention:				
P260A	Do not breathe va	pours		

P260ADo not breathe vapours.P280DWear protective gloves, protective clothing, and eye/face protection.

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

2% of the mixture consists of components of unknown acute dermal toxicity.

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

#### 2.3. Other hazards

None known.

## **SECTION 3: Composition/information on ingredients**

Ingredient	CAS Nbr	EC No.	REACH Registration No.	% by W	ť	Classification
alpha-Hydro-omega-hydroxy- poly[oxy(methyl-1,2-ethanediyl)], ether with 2,2-bis(hydroxymethyl)-1,3- propanediol (4:1), 2-hydroxy-3- mercaptopropyl ether	72244-98-5	701-196-7		80 - 100		Aquatic Chronic 3, H412 Skin Sens. 1B, H317
2,4,6-Tris(dimethylaminomethyl)phenol	90-72-2	202-013-9	01- 2119560597- 27	5 - 1	0	Acute Tox. 4, H302 Skin Corr. 1C, H314; Eye Dam. 1, H318
Bis[(dimethylamino)methyl]phenol	71074-89-0	275-162-0		0 - 1		Acute Tox. 4, H302; Skin Corr. 1B, H314

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

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

## **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### Inhalation

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

#### Skin contact

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

#### Eye contact

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

#### If swallowed

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

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

See Section 11.1 Information on toxicological effects

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

Not applicable

## **SECTION 5: Fire-fighting measures**

#### 5.1. Extinguishing media

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

## 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

#### Hazardous Decomposition or By-Products

Substance Carbon monoxide. Carbon dioxide. Oxides of sulphur. <u>Condition</u> During combustion. During combustion. During combustion.

#### **5.3.** Advice for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

## **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

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

#### **6.2.** Environmental precautions

Avoid release to the environment. 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 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. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

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

Store away from heat. Store away from acids. Store away from oxidising agents.

#### 7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

## **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

#### **Occupational exposure limits**

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

#### **Biological limit values**

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

#### Derived no effect level (DNEL)

Ingredient	Degradation	Population	Human exposure	DNEL
	Product		pattern	
2,4,6-		Worker	Inhalation, Long-term	0.31 mg/m <sup>3</sup>
Tris(dimethylaminomethyl			exposure (8 hours),	_
)phenol			Systemic effects	

#### Predicted no effect concentrations (PNEC)

Ingredient	Degradation Product	Compartment	PNEC
2,4,6- Tris(dimethylaminomethyl) phenol		Freshwater	0.084 mg/l
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

**Recommended monitoring procedures:**Information on recommended monitoring procedures can be obtained from UK HSC

#### 8.2. Exposure controls

In addition, refer to the annex for more information.

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

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

#### 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:

MaterialThePolymer laminateNo

**Thickness (mm)** No data available **Breakthrough Time** No data available

Applicable Norms/Standards Use gloves tested to EN 374

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

#### **Respiratory protection**

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

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 type A

#### 8.2.3. Environmental exposure controls

Refer to Annex

## **SECTION 9: Physical and chemical properties**

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

Appearance	
Physical state	Liquid.
Colour	Amber
Specific Physical Form:	Amber liquid
Odor	Mercaptan
Odour threshold	No data available.
рН	No data available.
<b>Boiling point/boiling range</b>	No data available.

Melting point
Flammability (solid, gas)
Explosive properties
Oxidising properties
Flash point
Autoignition temperature
Flammable Limits(LEL)
Flammable Limits(UEL)
Vapour pressure
Relative density
•
Water solubility
Solubility- non-water
Partition coefficient: n-octanol/water
Evaporation rate
Vapour density
Decomposition temperature
Viscosity
Density

9.2. Other information EU Volatile Organic Compounds Percent volatile Not applicable. Not applicable. Not classified Not classified 149 °C [Test Method:Closed Cup] No data available. Not applicable. Not applicable. Not applicable. 1.13 - 1.17 [*Ref Std*:WATER=1] No data available. No data available. No data available. No data available. Not applicable. No data available. 10 - 17 mPa-s 1.13 - 1.17 kg/m3

*No data available.* <= 1 %

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

#### **10.1 Reactivity**

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

10.2 Chemical stability

Stable.

#### 10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

#### 10.4 Conditions to avoid

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

Condition

**10.5 Incompatible materials** Strong acids.

Strong oxidising agents.

#### 10.6 Hazardous decomposition products

Substance 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

#### 3M assessments.

#### **11.1 Information on Toxicological effects**

#### Signs and Symptoms of Exposure

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

#### Inhalation

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

#### Skin contact

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 >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
alpha-Hydro-omega-hydroxy-poly[oxy(methyl-1,2-ethanediyl)], ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2- hydroxy-3-mercaptopropyl ether	Dermal	Rabbit	LD50 > 10,200 mg/kg
alpha-Hydro-omega-hydroxy-poly[oxy(methyl-1,2-ethanediyl)], ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), 2- hydroxy-3-mercaptopropyl ether	Ingestion	Rat	LD50 2,600 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
Bis[(dimethylamino)methyl]phenol	Ingestion		LD50 estimated to be 300 - 2,000 mg/kg

ATE = acute toxicity estimate

#### **Skin Corrosion/Irritation**

Name	Species	Value
alpha-Hydro-omega-hydroxy-poly[oxy(methyl-1,2-ethanediyl)], ether with 2,2-	Rabbit	No significant irritation
bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether		
2,4,6-Tris(dimethylaminomethyl)phenol	Rabbit	Corrosive
Bis[(dimethylamino)methyl]phenol	similar	Corrosive
	compoun	
	ds	

#### Serious Eye Damage/Irritation

Name	Species	Value

alpha-Hydro-omega-hydroxy-poly[oxy(methyl-1,2-ethanediyl)], ether with 2,2-	Rabbit	Mild irritant
bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether		
2,4,6-Tris(dimethylaminomethyl)phenol	Rabbit	Corrosive
Bis[(dimethylamino)methyl]phenol	similar	Corrosive
	compoun	
	ds	

## **Skin Sensitisation**

Name	Species	Value
alpha-Hydro-omega-hydroxy-poly[oxy(methyl-1,2-ethanediyl)], ether with 2,2- bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether	Mouse	Sensitising
2,4,6-Tris(dimethylaminomethyl)phenol	Guinea pig	Not classified

#### **Respiratory Sensitisation**

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

#### Germ Cell Mutagenicity

Name	Route	Value
alpha-Hydro-omega-hydroxy-poly[oxy(methyl-1,2-ethanediyl)], ether with 2,2-	In Vitro	Not mutagenic
bis(hydroxymethyl)-1,3-propanediol (4:1), 2-hydroxy-3-mercaptopropyl ether		-
2,4,6-Tris(dimethylaminomethyl)phenol	In Vitro	Not mutagenic

#### Carcinogenicity

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

#### **Reproductive Toxicity**

#### **Reproductive and/or Developmental Effects**

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

#### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
2,4,6- Tris(dimethylaminomethyl) phenol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	

#### Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
alpha-Hydro-omega- hydroxy-poly[oxy(methyl- 1,2-ethanediyl)], ether with 2,2-bis(hydroxymethyl)- 1,3-propanediol (4:1), 2- hydroxy-3-mercaptopropyl ether	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 75 mg/kg/day	90 days
alpha-Hydro-omega- hydroxy-poly[oxy(methyl- 1,2-ethanediyl)], ether with 2,2-bis(hydroxymethyl)- 1,3-propanediol (4:1), 2- hydroxy-3-mercaptopropyl ether	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 250 mg/kg/day	90 days
alpha-Hydro-omega- hydroxy-poly[oxy(methyl- 1,2-ethanediyl)], ether with 2,2-bis(hydroxymethyl)-	Ingestion	endocrine system   heart   skin   immune system   nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	90 days

1,3-propanediol (4:1), 2- hydroxy-3-mercaptopropyl ether		eyes   kidney and/or bladder   respiratory system   vascular system				
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.

## **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	Туре	Exposure	Test endpoint	Test result
alpha-Hydro-omega- hydroxy- poly[oxy(methyl-1,2- ethanediyl)], ether with 2,2- bis(hydroxymethyl)- 1,3-propanediol (4:1), 2-hydroxy-3- mercaptopropyl ether	72244-98-5	Green algae	Experimental	72 hours	EC50	>733 mg/l
alpha-Hydro-omega- hydroxy- poly[oxy(methyl-1,2- ethanediyl)], ether with 2,2- bis(hydroxymethyl)- 1,3-propanediol (4:1), 2-hydroxy-3- mercaptopropyl ether	72244-98-5	Water flea	Experimental	48 hours	EC50	12 mg/l
alpha-Hydro-omega- hydroxy- poly[oxy(methyl-1,2- ethanediyl)], ether with 2,2- bis(hydroxymethyl)- 1,3-propanediol (4:1), 2-hydroxy-3- mercaptopropyl ether	72244-98-5	Zebra Fish	Experimental	96 hours	LC50	87 mg/l
alpha-Hydro-omega- hydroxy- poly[oxy(methyl-1,2- ethanediyl)], ether with 2,2- bis(hydroxymethyl)- 1,3-propanediol (4:1), 2-hydroxy-3- mercaptopropyl ether	72244-98-5	Green algae	Experimental	72 hours	NOEC	338 mg/l

1 1 1 1 1	72244 00 5		<b>F</b> 1	21.1	hiord	2.5 /
alpha-Hydro-omega-	72244-98-5	Water flea	Experimental	21 days	NOEC	3.5 mg/l
hydroxy-						
poly[oxy(methyl-1,2-						
ethanediyl)], ether with						
2,2-						
bis(hydroxymethyl)-						
1,3-propanediol (4:1),						
2-hydroxy-3-						
mercaptopropyl ether						
2,4,6-	90-72-2	Common Carp	Experimental	96 hours	LC50	175 mg/l
Tris(dimethylaminomet						
hyl)phenol						
2,4,6-	90-72-2	Grass Shrimp	Experimental	96 hours	LC50	718 mg/l
Tris(dimethylaminomet						
hyl)phenol						
2,4,6-	90-72-2	Green algae	Experimental	72 hours	EC50	84 mg/l
Tris(dimethylaminomet		Ŭ	1			Ũ
hyl)phenol						
2,4,6-	90-72-2	Green algae	Experimental	72 hours	NOEC	6.25 mg/l
Tris(dimethylaminomet			1			
hyl)phenol						
Bis[(dimethylamino)me	71074-89-0	İ	Data not available		İ	
thyl]phenol			or insufficient for			
. J II			classification			
		1		1	1	

#### **12.2.** Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
alpha-Hydro-omega- hydroxy-poly[oxy(methyl- 1,2-ethanediyl)], ether with 2,2-bis(hydroxymethyl)-1,3- propanediol (4:1), 2- hydroxy-3-mercaptopropyl ether	72244-98-5	Experimental Biodegradation	28 days	CO2 evolution	5 %CO2 evolution/THC O2 evolution	OECD 301B - Modified sturm or CO2
2,4,6- Tris(dimethylaminomethyl) phenol	90-72-2	Experimental Biodegradation	28 days	BOD	4 % weight	OECD 301D - Closed bottle test
Bis[(dimethylamino)methyl]phenol	71074-89-0	Estimated Biodegradation	28 days	BOD	20 % weight	OECD 301C - MITI test (I)

#### **12.3 : Bioaccumulative potential**

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
alpha-Hydro-omega- hydroxy-poly[oxy(methyl- 1,2-ethanediyl)], ether with 2,2-bis(hydroxymethyl)- 1,3-propanediol (4:1), 2- hydroxy-3-mercaptopropyl ether	72244-98-5	Estimated Bioconcentration		Log Kow	>1.2	Estimated: Octanol-water partition coefficient
2,4,6- Tris(dimethylaminomethyl) phenol	90-72-2	Experimental Bioconcentration		Log Kow	-0.66	Other methods
Bis[(dimethylamino)methyl ]phenol	71074-89-0	Estimated Bioconcentration		Log Kow	-2.34	Estimated: Octanol-water partition coefficient

#### 12.4. Mobility in soil

Please contact manufacturer for more details

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

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

#### 12.6. Other adverse effects

No information available.

## **SECTION 13: Disposal considerations**

#### **13.1 Waste treatment methods**

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

Dispose of 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. 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 substances20 01 27\*Paint, inks, adhesives and resins containing dangerous substances

## **SECTION 14: Transportation information**

IMDG: UN3267; CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL); 8; III; EMS: FA, SB. IATA: UN3267, CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL), 8, III. ADR: UN3267; CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (TRIS(2,4,6-DIMETHYLAMINOMONOMETHYL)PHENOL); 8; III; C7; (E).

## **SECTION 15: Regulatory information**

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

#### 15.2. Chemical Safety Assessment

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

## **SECTION 16: Other information**

#### List of relevant H statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

#### **Revision information:**

Section 2: <125ml Hazard - Environmental information was added.

CLP: Ingredient table information was modified.

Label: CLP Classification information was modified.

Label: CLP Environmental Hazard Statements information was added.

Label: CLP Percent Unknown information was modified.

Label: CLP Precautionary - Disposal information was added.

Label: CLP Precautionary - Response information was modified.

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

Section 09: Color information was added.

Section 09: Odor information was added.

Sections 3 and 9: Odour, colour, grade information information was deleted.

Section 12: Component ecotoxicity information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12:Bioccumulative potential information information was modified.

Section 14: Transportation classification information was modified.

Section 15: Regulations - Inventories information was deleted.

Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was modified.

## Annex

1. Title	
Substance identification	2,4,6-Tris(dimethylaminomethyl)phenol; EC No. 202-013-9;
	CAS Nbr 90-72-2;
	CAB 1101 90-72-2,
Exposure Scenario Name	Formulation
Lifecycle Stage	Formulation or re-packing
Contributing activities	PROC 08b -Transfer of substance or mixture (charging and discharging) at
	dedicated facilities
	PROC 09 - Transfer of substance or mixture into small containers (dedicated
	filling line, including weighing)
	ERC 02 -Formulation into mixture
Processes, tasks and activities covered	Transfer of substances/mixtures into small containers e.g. tubes , bottles or small
	reservoirs. Transfers with dedicated controls, including loading, filling, dumping,
	bagging.
2. Operational conditions and risk mana	
<b>Operating Conditions</b>	Physical state: Liquid.
	General operating conditions:
	Air exchange rate:: $\geq 3$ times per hour;
	Indoor use;
	Partially open and partially closed process;
	Processing Temperature:: <= 40 degree Celsius;
	Task: PROC08b;
	Duration of exposure per day at workplace [for one worker]: 8 hours/day;
	Task: PROC09;
	Duration of exposure per day at workplace [for one worker]: <= 4 hour(s);
Risk management measures	Under the operational conditions described above the following risk management
	measures apply:
	General risk management measures:
	Human health:
	Local exhaust ventilation;
	Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for
	specific glove material.;

	Environmental: 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	2,4,6-Tris(dimethylaminomethyl)phenol; EC No. 202-013-9; CAS Nbr 90-72-2;
Exposure Scenario Name	Industrial Use of Adhesives
Lifecycle Stage	Use at industrial sites
Contributing activities	PROC 05 -Mixing or blending in batch processes PROC 08a -Transfer of substance or mixture (charging and discharging) at non- dedicated facilities PROC 10 -Roller application or brushing
	PROC 13 -Treatment of articles by dipping and pouring ERC 05 -Use at industrial site leading to inclusion into/onto article
Processes, tasks and activities covered	Application of product with a roller or brush. Application of product with applicator gun. Mixing operations (open systems). Transfers without dedicated controls, including loading, filling, dumping, bagging.
2. Operational conditions and risk mana	
Operating Conditions	Physical state:Liquid. General operating conditions: Air exchange rate:: >= 3 times per hour; Duration of exposure per day at workplace [for one worker]: <= 4 hour(s); Indoor use; Processing Temperature:: <= 40 degree Celsius; Task: PROC05; Duration of exposure per day at workplace [for one worker]: 8 hours/day;
Risk management measures	Under the operational conditions described above the following risk management measures apply: General risk management measures: Human health: Local exhaust ventilation; Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for specific glove material.; Environmental: None needed;
Waste management measures	Do not release to waterways or sewers;
3. Prediction of exposure	
Prediction of exposure	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

1. Title	
Substance identification	2,4,6-Tris(dimethylaminomethyl)phenol; EC No. 202-013-9; CAS Nbr 90-72-2;
Exposure Scenario Name	Hand-mixing of preparations, e.g. plasters, resins, two-component adhesives.
Lifecycle Stage	Widespread use by professional workers
Contributing activities	PROC 10 -Roller application or brushing

	ERC 08c -Widespread use leading to inclusion into/onto article (indoor)				
Processes, tasks and activities covered	Application of product.				
2. Operational conditions and risk man					
Operating Conditions	Physical state:Liquid.				
operating containing	General operating conditions:				
	Duration of exposure per day at workplace [for one worker]: 8 hours/day; Indoor use;				
	Processing Temperature:: <= 40 degree Celsius;				
Risk management measures	Under the operational conditions described above the following risk management measures apply: General risk management measures: Human health: Local exhaust ventilation; Protective Gloves - Chemical resistant. Refer to Section 8 of the SDS for specific glove material.; Environmental: None needed;				
Waste management measures	Do not release directly to waterways;				
3. Prediction of exposure					
Prediction of exposure	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.				

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.

#### 3M United Kingdom MSDSs are available at www.3M.com/uk



## 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<sup>™</sup> Scotch-Weld<sup>™</sup> Epoxy Structural Adhesive DP-100: part B

REACH registration number	CASRN	EC Number	Ingredient Name
01-2119456619-26-0025	25068-38-6		4,4'-ISOPROPYLIDENEDIPHENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)

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

#### Identified uses

Structural adhesive.

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

Address:3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.Telephone:+44 (0)1344 858 000E Mail:tox.uk@mmm.comWebsite:www.3M.com/uk

#### 1.4. Emergency telephone number

+44 (0)1344 858 000

## **SECTION 2: Hazard identification**

## 2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

## CLASSIFICATION:

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

For full text of H phrases, see Section 16.

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

## SIGNAL WORD

WARNING.

Symbols:	
GHS07 (Exclamation mark)  GHS09 (Environment)	

## Pictograms



Ingredients: Ingredient		CAS Nbr	EC No.	% by Wt	
4,4'-ISOPROPYLIDENEDIPHEN EPICHLOROHYDRIN POLYMI or <=700)	500-033-5	80 - 100			
HAZARD STATEMENTS:					
H319	Causes serious eye	irritation.			
H315	Causes skin irritati	on.			
H317	May cause an aller	gic skin reaction.			
H411	Toxic to aquatic lif	fe with long lasting effects.			
PRECAUTIONARY STATEME	NTS				
Prevention:					
P280E	Wear protective glo	oves.			
P273	Avoid release to the environment.				
Response:					
P305 + P351 + P338		ise cautiously with water for	or several minutes. Remo	ve contact lenses, if	
P333 + P313	present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention.				
Disposal:					
P501	Dispose of content regulations.	s/container in accordance v	with applicable local/regior	al/national/international	
For containers not exceeding 125	ml the following H	azard and Precautionary	statements may be used:		
<=125 ml Hazard statements H317	May cause an aller	rgic skin reaction.			
<=125 ml Precautionary stateme	nts				
<b>Prevention:</b> P280E	Wear protective g	loves.			

#### **Response:** P333 + P313

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

#### 2.3. Other hazards

None known.

## **SECTION 3: Composition/information on ingredients**

Ingredient	CAS Nbr	EC No.	REACH	% by Wt	Classification
_			<b>Registration No.</b>		
4,4'-	25068-38-6	500-033-5		80 - 100	Skin Irrit. 2,
ISOPROPYLIDENEDIPH					H315; Eye Irrit. 2,
ENOL-					H319; Skin Sens.
EPICHLOROHYDRIN					1, H317; Aquatic
POLYMER (MW					Chronic 2, H411
unknown or <=700)					

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

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

## **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### Inhalation

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

#### Skin contact

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

#### Eye contact

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

#### If swallowed

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

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

See Section 11.1 Information on toxicological effects

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

Not applicable

## **SECTION 5: Fire-fighting measures**

#### 5.1. Extinguishing media

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

#### 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

#### Hazardous Decomposition or By-Products

Substance Aldehydes. Carbon monoxide. Carbon dioxide.

<u>Condition</u> During combustion. During combustion. During combustion.

#### **5.3.** Advice for fire-fighters

Wear full protective clothing, including helmet, self-contained, positive pressure or pressure demand breathing apparatus, bunker coat and pants, bands around arms, waist and legs, face mask, and protective covering for exposed areas of the head.

## **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

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

#### 6.2. Environmental precautions

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

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

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

#### 6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

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

#### 7.1. Precautions for safe handling

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

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

Store away from heat. Store away from strong bases. Store away from oxidising agents. Store away from amines.

#### 7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

## **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

#### **Occupational exposure limits**

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

#### **Biological limit values**

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

#### **Derived no effect level (DNEL)**

Ingredient	Degradation	Population	Human exposure	DNEL
4,4'- ISOPROPYLIDENEDIPH ENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	Product	Worker	pattern           Dermal, Long-term           exposure (8 hours),           Systemic effects	8.3 mg/kg bw/d
4,4'- ISOPROPYLIDENEDIPH ENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)		Worker	Dermal, Short-term exposure, Systemic effects	8.3 mg/kg
4,4'- ISOPROPYLIDENEDIPH ENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)		Worker	Inhalation, Long-term exposure (8 hours), Systemic effects	12.3 mg/m <sup>3</sup>
4,4'- ISOPROPYLIDENEDIPH ENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)		Worker	Inhalation, Short-term exposure, Systemic effects	12.3 mg/m <sup>3</sup>

#### Predicted no effect concentrations (PNEC)

Ingredient	Degradation	Compartment	PNEC
	Product		
4,4'-		Freshwater	0.003 mg/l
ISOPROPYLIDENEDIPH			
ENOL-			
EPICHLOROHYDRIN			
POLYMER (MW unknown			
or <=700)			
4,4'-		Freshwater sediments	0.5 mg/kg d.w.
ISOPROPYLIDENEDIPH			
ENOL-			
EPICHLOROHYDRIN			
POLYMER (MW unknown			
or <=700)			
4,4'-		Intermittent releases to water	0.013 mg/l
ISOPROPYLIDENEDIPH			_
ENOL-			
EPICHLOROHYDRIN			
POLYMER (MW unknown			
or <=700)			

4,4'- ISOPROPYLIDENEDIPH ENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	Marine water	0.0003 mg/l
4,4'- ISOPROPYLIDENEDIPH ENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	Marine water sediments	0.5 mg/kg d.w.
4,4'- ISOPROPYLIDENEDIPH ENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	Sewage Treatment Plant	10 mg/l

**Recommended monitoring procedures:**Information on recommended monitoring procedures can be obtained from UK HSC

#### 8.2. Exposure controls

In addition, refer to the annex for more information.

#### 8.2.1. Engineering controls

Provide ventilated enclosure for heat curing. Curing enclosures must be exhausted to outdoors or to a suitable emission control device. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

#### 8.2.2. Personal protective equipment (PPE)

#### Eye/face protection

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

Material

Polymer laminate

Thickness (mm) No data available **Breakthrough Time** No data available

Applicable Norms/Standards Use gloves tested to EN 374

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

#### **Respiratory protection**

In case of inadequate ventilation wear 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

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 type A

#### 8.2.3. Environmental exposure controls

Refer to Annex

## **SECTION 9: Physical and chemical properties**

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

Appearance	
Physical state	Liquid.
Colour	Yellow
Specific Physical Form:	Yellow liquid
Odor	Slight Odor
Odour threshold	No data available.
рН	7
Boiling point/boiling range	>=200 °C
Melting point	Not applicable.
Flammability (solid, gas)	Not applicable.
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	>=150 °C [ <i>Test Method</i> :Closed Cup]
Autoignition temperature	No data available.
Flammable Limits(LEL)	Not applicable.
Flammable Limits(UEL)	Not applicable.
Vapour pressure	Not applicable.
Relative density	1.16 [ <i>Ref Std</i> :WATER=1]
Water solubility	No data available.
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.
Evaporation rate	No data available.
Vapour density	Not applicable.
Decomposition temperature	No data available.
Viscosity	12 - 14 Pa-s [@ 25 °C ]
Density	1.16 g/cm3
. Other information	

9.2. Other information EU Volatile Organic Compounds Percent volatile

No data available. No data available.

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

#### **10.1 Reactivity**

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

#### 10.2 Chemical stability

Stable.

#### 10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

#### 10.4 Conditions to avoid

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

#### **10.5 Incompatible materials**

Amines. Strong bases. Strong oxidising agents.

#### 10.6 Hazardous decomposition products

<u>Substance</u>

None known.

**Condition** 

Refer to section 5.2 for hazardous decomposition products during combustion.

## **SECTION 11: Toxicological information**

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

#### **11.1 Information on Toxicological effects**

Signs and Symptoms of Exposure

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

#### Inhalation

No health effects are expected.

#### Skin contact

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

#### Eye contact

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

#### Ingestion

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

#### **Toxicological Data**

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

#### **Acute Toxicity**

Route	Species	Value
Dermal	Rat	LD50 > 1,600 mg/kg
Ingestion	Rat	LD50 > 1,000 mg/kg
-		
	Dermal	Dermal Rat

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	Rabbit	Mild irritant

#### Serious Eye Damage/Irritation

Name	Species	Value
4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	Rabbit	Moderate irritant

## **Skin Sensitisation**

Name	Species	Value
4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	Human and	Sensitising
	animal	

#### **Respiratory Sensitisation**

Name	Species	Value
4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER (MW	Human	Not classified
unknown or <=700)		

#### Germ Cell Mutagenicity

Name	Route	Value
4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	In vivo	Not mutagenic
4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	In Vitro	Some positive data exist, but the data are not sufficient for classification

#### Carcinogenicity

Name	Route	Species	Value
4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN	Dermal	Mouse	Some positive data exist, but the data are not
POLYMER (MW unknown or <=700)			sufficient for classification

#### **Reproductive Toxicity**

#### **Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration
4,4'-ISOPROPYLIDENEDIPHENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-ISOPROPYLIDENEDIPHENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation

4,4'-ISOPROPYLIDENEDIPHENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
4,4'-ISOPROPYLIDENEDIPHENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation

#### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

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

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
4,4'- ISOPROPYLIDENEDIPH ENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
4,4'- ISOPROPYLIDENEDIPH ENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
4,4'- ISOPROPYLIDENEDIPH ENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	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

#### **Aspiration Hazard**

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

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

## **SECTION 12: Ecological information**

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

#### 12.1. Toxicity

No product test data available.

Material	CAS #	Organism	Туре	Exposure	Test endpoint	Test result
4,4'-	25068-38-6	Rainbow trout	Estimated	96 hours	LC50	2 mg/l
ISOPROPYLIDENEDI						_
PHENOL-						
EPICHLOROHYDRIN						
POLYMER (MW						
unknown or <=700)						
4,4'-	25068-38-6	Water flea	Estimated	48 hours	LC50	1.8 mg/l
ISOPROPYLIDENEDI						-
PHENOL-						

EPICHLOROHYDRIN POLYMER (MW unknown or <=700)						
4,4'- ISOPROPYLIDENEDI PHENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	25068-38-6	Green Algae	Experimental	72 hours	EC50	>11 mg/l
4,4'- ISOPROPYLIDENEDI PHENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	25068-38-6	Green Algae	Experimental	72 hours	NOEC	4.2 mg/l
4,4'- ISOPROPYLIDENEDI PHENOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)	25068-38-6	Water flea	Experimental	21 days	NOEC	0.3 mg/l

#### 12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
4,4'- ISOPROPYLIDENEDIPHE NOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)		Experimental Hydrolysis		Hydrolytic half-life	117 hours (t 1/2)	Other methods
4,4'- ISOPROPYLIDENEDIPHE NOL- EPICHLOROHYDRIN POLYMER (MW unknown or <=700)		Experimental Biodegradation	28 days	BOD	5 %BOD/COD	OECD 301F - Manometric respirometry

#### **12.3 : Bioaccumulative potential**

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
4,4'- ISOPROPYLIDENEDIPH ENOL-		Experimental Bioconcentration		Log Kow	3.242	Other methods
EPICHLOROHYDRIN POLYMER (MW unknown or <=700)						

#### 12.4. Mobility in soil

Please contact manufacturer for more details

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

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

#### 12.6. Other adverse effects

No information available.

## **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

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

Dispose of 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. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

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

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

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

## **SECTION 14: Transportation information**

ADR: UN3082; ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER); 9; III; (-); M6. IMDG: UN3082; ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER); 9; III; Marine Pollutant: 4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER; EMS: FA, SF. Exemption: For vessels containing a net quantity of 5 l or a net mass of 5 kg or less per single or inner packaging , special provision 375 (ADR), exemption per 2.10.2.7 (IMDG) or special provision A197 (IATA) may be applied, if applicable IATA: UN3082; ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER); 9; III.

## **SECTION 15: Regulatory information**

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

#### 15.2. Chemical Safety Assessment

A chemical safety assessment has been carried out for this substance/mixture 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.
- H411 Toxic to aquatic life with long lasting effects.

#### **Revision information:**

Section 09: Color information was added.

Section 09: Odor information was added.

Sections 3 and 9: Odour, colour, grade information information was deleted. 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.

Section 14: Transportation classification information was modified.

Section 15: Regulations - Inventories information was deleted.

## Annex

1. Title	
Substance identification	4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER (MW unknown or <=700); EC No. 500-033-5; CAS Nbr 25068-38-6;
Exposure Scenario Name	Industrial Mixing and Application
Lifecycle Stage	Use at industrial sites
Contributing activities	PROC 05 -Mixing or blending in batch processes 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 applicator gun. Mixing operations (open systems).
2. Operational conditions and risk man	
Operating Conditions	Physical state:Liquid.General operating conditions:Duration of exposure per day at workplace [for one worker]: 8 hours/day;Emission days per year: 220 days per year;Local freshwater dilution factor: 10;Local marine water dilution factor: 100;Used amount or applied quantity per task/application by worker: 3,550 kg per day;
Risk management measures	Under the operational conditions described above the following risk management measures apply: General risk management measures: Human health: Provide extract ventilation to points where emissions occur; 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	Discharge to aquatic environment is restricted; Do not apply industrial sludge to natural soils; Prevent discharge of undissolved substance to or recover from wastewater; Sludge should be incinerated, contained or reclaimed;
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	4,4'-ISOPROPYLIDENEDIPHENOL-EPICHLOROHYDRIN POLYMER (MW unknown or <=700); EC No. 500-033-5; CAS Nbr 25068-38-6;
Exposure Scenario Name	Industrial Transfer
Lifecycle Stage	Use at industrial sites
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	Transfer of substances/mixtures into small containers e.g. tubes , bottles or small
	reservoirs.
2. Operational conditions and risk mana	agement measures
<b>Operating Conditions</b>	Physical state:Liquid.
	General operating conditions:
	Continuous release;
	Duration of exposure per day at workplace [for one worker]: 8 hours/day;
	Emission days per year: 225 days per year;
	Local freshwater dilution factor: 10;
	Local marine water dilution factor: 100 ;
<b>Risk management measures</b>	Under the operational conditions described above the following risk management
	measures apply:
	General risk management measures:
	Human health:
	Wear chemically resistant gloves (tested to EN374) in combination with 'basic'
	employee training. Refer to Section 8 of the SDS for specific glove material.;
	Environmental:
	None needed;
Waste management measures	Discharge to aquatic environment is restricted;
	Do not apply industrial sludge to natural soils;
	Sludge should be incinerated, contained or reclaimed;
2 Prediction of exposure	
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.

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