

Safety Data Sheet

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

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

1.1. Product identifier

3M Scotch-Weld DP-760

Product Identification Numbers

FS-9100-3299-4 FS-9100-4045-0

7000079969 7000006834

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:

09-0181-9, 09-0180-1

TRANSPORTATION INFORMATION

FS-9100-3299-4

ADR/RID: UN3259, AMINES, SOLID, CORROSIVE, N.O.S., LIMITED QUANTITY, (TRIETHYLENETETRAMINE), 8., II, (E), ADR Classification Code: C8.

IMDG-CODE: UN3259, AMINES, SOLID, CORROSIVE, N.O.S., (TRIETHYLENETETRAMINE), 8., II, IMDG-Code

3M Scotch-Weld DP-760

segregation code: 18 - ALKALIS, LIMITED QUANTITY, EMS: FA,SB.

ICAO/IATA: UN3259, AMINES, SOLID, CORROSIVE, N.O.S., (TRIETHYLENETETRAMINE), 8, II.

FS-9100-4045-0

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ICAO/IATA: UN3259, AMINES, SOLID, CORROSIVE, N.O.S., (TRIETHYLENETETRAMINE), 8, II.

KIT LABEL

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

CLASSIFICATION:

Acute Toxicity, Category 3 - Acute Tox. 3; H311 Acute Toxicity, Category 4 - Acute Tox. 4; H302

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

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

Skin Sensitization, Category 1A - Skin Sens. 1A; H317

Germ Cell Mutagenicity, Category 2 - Muta. 2; H341

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.

GHS05 (Corrosion) | GHS06 (Skull and crossbones) | GHS08 (Health Hazard) | GHS09 (Environment) |

Pictograms



HAZARD STATEMENTS:

Toxic in contact with skin. H311 H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. Suspected of causing genetic defects. H341

Toxic to aquatic life with long lasting effects. H411

PRECAUTIONARY STATEMENTS

Prevention:

3M Scotch-Weld DP-760

P260A Do not breathe vapours.

P280D Wear protective gloves, protective clothing, and eye/face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/shower.

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

present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTRE or doctor/physician.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

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

<=125 ml Hazard statements

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.

<=125 ml Precautionary statements

Prevention:

P260A Do not breathe vapours.

P280D Wear protective gloves, protective clothing, and eye/face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/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.

Section 01: SAP Material Numbers information was added.

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

Label: CLP Precautionary - Disposal information was deleted. Label: CLP Precautionary - Prevention information was modified.

Label: Graphic information was modified.



Safety Data Sheet

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 Document group:
 09-0181-9
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 23.00

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 08/07/2017
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 02/09/2016

Transportation version number: 1.00 (26/01/2011)

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

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

1.1. Product identifier

Scotch-Weld(TM) DP-760 Off-White: Part B

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:

Acute Toxicity, Category 4 - Acute Tox. 4; H302

Serious Eye Damage/Eye Irritation, Category 2 - Eye Irrit. 2; H319

Skin Corrosion/Irritation, Category 2 - Skin Irrit. 2; H315

Skin Sensitization, Category 1A - Skin Sens. 1A; H317

Germ Cell Mutagenicity, Category 2 - Muta. 2; H341

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
p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	5026-74-4	225-716-2	30 - 60
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	500-033-5	5 - 15
Phenol-formaldehyde polymer, glycidyl ether	28064-14-4		1 - 15
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	9003-36-5	500-006-8	0 - 7

HAZARD STATEMENTS:

H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H341 Suspected of causing genetic defects.

H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P280E Wear protective gloves.

P273 Avoid release to the environment.

Response:

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

present and easy to do. Continue rinsing.

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

Disposal:

P501 Dispose of contents/container in accordance with applicable local/regional/national/international

regulations.

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

<=125 ml Hazard statements

H317 May cause an allergic skin reaction. H341 Suspected of causing genetic defects.

<=125 ml Precautionary statements

Prevention:

P280E Wear protective gloves.

Response:

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

Disposal:

P501 Dispose of contents/container in accordance with applicable

local/regional/national/international regulations.

8% of the mixture consists of components of unknown acute oral toxicity.

Contains 23% 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 Wt	Classification
p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	5026-74-4	225-716-2		30 - 60	Aquatic Chronic 2, H411 Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Muta. 2, H341
Phenol-formaldehyde polymer, glycidyl ether	28064-14-4			1 - 15	Skin Sens. 1, H317
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	500-033-5	01- 2119456619- 26	5 - 15	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 2, H411
Acrylic copolymer	Trade Secret			5 - 10	Substance not classified as hazardous
Silica, vitreous	60676-86-0	262-373-8		5 - 10	Substance with a Community level exposure limit in the workplace
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	9003-36-5	500-006-8		0 - 7	Aquatic Chronic 2, H411 Skin Irrit. 2, H315; Skin Sens. 1A, H317
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7			1 - 5	Substance with a Community level exposure limit in the workplace
Titanium dioxide	13463-67-7	236-675-5	01- 2119489379- 17	1 - 3	Substance with a Community level exposure limit in the workplace
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	2530-83-8	219-784-2	01- 2119513212- 58	0.5 - 1.5	Eye Dam. 1, H318

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

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

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

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

Skin contact

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

Eye contact

Immediately flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. 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

Condition

During combustion. During combustion. During combustion.

5.3. Advice for fire-fighters

No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Place in a closed container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet. Seal the container. Dispose of collected material as soon as possible.

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

For industrial or professional use only. Do not handle until all safety precautions have been read and understood. 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. Use personal protective equipment (eg. gloves, respirators...) as required.

7.2. Conditions for safe storage including any incompatibilities

Store away from heat. Store away from acids.

7.3. Specific end use(s)

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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
Titanium dioxide	13463-67-7	UK HSC	TWA(Inhalable):10 mg/m3;TWA(respirable):4 mg/m³	
Silica, vitreous	60676-86-0	UK HSC	TWA(as respirable dust):0.08 mg/m ³	
Silicon dioxide	60676-86-0	UK HSC	TWA(as inhalable dust):6 mg/m3	
Silicon dioxide	67762-90-7	UK HSC	TWA(as inhalable dust):6 mg/m3;TWA(as respirable dust):2.4 mg/m3	

UK HSC: UK Health and Safety Commission

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling

Biological limit values

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

8.2. Exposure controls

8.2.1. Engineering controls

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)

Eve/face protection

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

Indirect vented goggles.

Applicable Norms/Standards

Use eye protection conforming to EN 166

Skin/hand protection

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

MaterialThickness (mm)Breakthrough TimePolymer laminateNo data availableNo data available

Applicable Norms/Standards Use gloves tested to EN 374

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

Respiratory protection

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

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

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

Applicable Norms/Standards

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical stateSolid.Specific Physical Form:Paste

Appearance/Odour Thixotropic paste; off-white; epoxy odour.

Odour thresholdNo data available.pHNot applicable.Boiling point/boiling rangeNot applicable.Melting pointNo data available.Flammability (solid, gas)Not classifiedExplosive propertiesNot classifiedOxidising propertiesNot classified

Flash point >=100 °C [Test Method:Closed Cup]

Autoignition temperatureNot applicable.Flammable Limits(LEL)Not applicable.Flammable Limits(UEL)Not applicable.Vapour pressureNot applicable.

Relative density 1.23 - 1.29 [*Ref Std:* WATER=1]

>=1.23 g/cm3

Water solubilityNegligibleSolubility- non-waterNo data available.Partition coefficient: n-octanol/waterNo data available.Evaporation rateNot applicable.Vapour densityNot applicable.Decomposition temperatureNo data available.Viscosity1,050 Pa-s

9.2. Other information

Density

EU Volatile Organic Compounds

Molecular weight

No data available.

Percent volatile

1 % weight

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Heat.

10.5 Incompatible materials

Strong acids.

10.6 Hazardous decomposition products

<u>Substance</u> <u>Condition</u>

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not agree with the 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

May cause additional health effects (see below).

Skin contact

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

Eye contact

Severe eye irritation: Signs/symptoms may include significant redness, swelling, pain, tearing, cloudy appearance of the cornea, and impaired vision.

Ingestion

Harmful if swallowed.

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:

Genotoxicity:

Genotoxicity and Mutagenicity: May interact with genetic material and possibly alter gene expression.

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 ATE300 - 2,000 mg/kg
p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	Dermal	Rabbit	LD50 > 4,000 mg/kg
p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	Ingestion	Rat	LD50 500-5000 mg/kg
Phenol-formaldehyde polymer, glycidyl ether	Dermal	Rabbit	LD50 > 6,000 mg/kg
Phenol-formaldehyde polymer, glycidyl ether	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 1.7 mg/l
Phenol-formaldehyde polymer, glycidyl ether	Ingestion	Rat	LD50 > 4,000 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	Rat	LD50 > 1,600 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Rat	LD50 > 1,000 mg/kg
Silica, vitreous	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silica, vitreous	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Silica, vitreous	Ingestion	Rat	LD50 > 5,110 mg/kg
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Dermal	Rabbit	LD50 > 2,000 mg/kg
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 1.7 mg/l
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	Ingestion	Rat	LD50 > 5,000 mg/kg
Siloxanes and Silicones, di-Me, reaction products with silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Siloxanes and Silicones, di-Me, reaction products with silica	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Rat	LD50 > 5,110 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg

Titanium dioxide	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Dermal	Rabbit	LD50 4,000 mg/kg
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Inhalation- Dust/Mist (4 hours)	Rat	LC50 > 5.3 mg/l
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Ingestion	Rat	LD50 7,010 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name		Value
p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	Rabbit	Irritant
Phenol-formaldehyde polymer, glycidyl ether	Rabbit	Minimal irritation
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	Rabbit	Mild irritant
epoxypropane		
Silica, vitreous	Rabbit	No significant irritation
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and	Rabbit	Mild irritant
phenol		
Siloxanes and Silicones, di-Me, reaction products with silica	Rabbit	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Rabbit	Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	Rabbit	Severe irritant
Phenol-formaldehyde polymer, glycidyl ether	Rabbit	Mild irritant
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-		Moderate irritant
epoxypropane		
Silica, vitreous	Rabbit	No significant irritation
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and	Rabbit	No significant irritation
phenol		
Siloxanes and Silicones, di-Me, reaction products with silica	Rabbit	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Rabbit	Corrosive

Skin Sensitisation

Name	Species	Value
p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	Guinea	Sensitising
	pig	
Phenol-formaldehyde polymer, glycidyl ether	Human	Sensitising
	and	
	animal	
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	Human	Sensitising
epoxypropane	and	
	animal	
Silica, vitreous	Human	Not classified
	and	
	animal	
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and	Multiple	Sensitising
phenol	animal	
	species	
Siloxanes and Silicones, di-Me, reaction products with silica	Human	Not classified
	and	
	animal	
Titanium dioxide	Human	Not classified
	and	
	animal	
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Guinea	Not classified
	pig	

Respiratory Sensitisation

Name	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	Human	Not classified
epoxypropane		

Germ Cell Mutagenicity

Name	Route	Value	
p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	In Vitro	Some positive data exist, but the data are not sufficient for classification	
p-(2,3-epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	In vivo	Mutagenic	
Phenol-formaldehyde polymer, glycidyl ether	In Vitro	Some positive data exist, but the data are not sufficient for classification	
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	In vivo	Not mutagenic	
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	In Vitro	Some positive data exist, but the data are not sufficient for classification	
Silica, vitreous	In Vitro	Not mutagenic	
Siloxanes and Silicones, di-Me, reaction products with silica	In Vitro	Not mutagenic	
Titanium dioxide	In Vitro	Not mutagenic	
Titanium dioxide	In vivo	Not mutagenic	
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	In vivo	Not mutagenic	
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	In Vitro	Some positive data exist, but the data are not sufficient for classification	

Carcinogenicity

Name	Route	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Silica, vitreous	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
Siloxanes and Silicones, di-Me, reaction products with silica	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium dioxide	Inhalation	Rat	Carcinogenic.
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Dermal	Mouse	Not carcinogenic

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation
Silica, vitreous	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silica, vitreous	Inhalation	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silica, vitreous	Ingestion	Not classified for development	Rat	NOAEL 1,350	during organogenesis

				mg/kg/day	
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
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Ingestion	Not classified for development	Rat	NOAEL 3,000 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

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

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
4,4'- Isopropylidenediphenol, oligomeric reaction products with 1-chloro- 2,3-epoxypropane	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
4,4'- Isopropylidenediphenol, oligomeric reaction products with 1-chloro- 2,3-epoxypropane	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
4,4'- Isopropylidenediphenol, oligomeric reaction products with 1-chloro- 2,3-epoxypropane	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
Silica, vitreous	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Siloxanes and Silicones, di-Me, reaction products with silica	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
[3-(2,3- Epoxypropoxy)propyl] trimethoxysilane	Ingestion	heart endocrine system bone, teeth, nails, and/or hair hematopoietic system liver immune system nervous system kidney and/or bladder respiratory system	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 Nbr	Organism	Type	Exposure	Test endpoint	Test result
[3-(2,3- Epoxypropoxy) propyl] trimethoxysilan	2530-83-8	Green algae	Experimental	96 hours	EC50	350 mg/l
e						
[3-(2,3- Epoxypropoxy) propyl] trimethoxysilan	2530-83-8	Green Algae	Experimental	96 hours	NOEC	130 mg/l
[3-(2,3- Epoxypropoxy) propyl] trimethoxysilan e	2530-83-8	Water flea	Experimental	21 days	NOEC	>=100 mg/l
[3-(2,3- Epoxypropoxy) propyl] trimethoxysilan e	2530-83-8	Crustacea other	Experimental	48 hours	LC50	324 mg/l
[3-(2,3- Epoxypropoxy) propyl] trimethoxysilan e	2530-83-8	Common Carp	Experimental	96 hours	LC50	55 mg/l
Titanium dioxide	13463-67-7	Fish	Experimental	30 days	NOEC	>100 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	30 days	NOEC	3 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
Titanium dioxide	13463-67-7	Sheepshead Minnow	Experimental	96 hours	LC50	>240 mg/l
Siloxanes and Silicones, di- Me, reaction products with silica	67762-90-7	Zebra Fish	Experimental	96 hours	LC50	>10,000 mg/l
Phenol-	28064-14-4		Data not			

formaldehyde			available or			
polymer,			insufficient for			
glycidyl ether			classification			
Formaldehyde,	9003-36-5	Green Algae	Experimental	72 hours	EC50	1.8 mg/l
oligomeric	3003-30-3	Green Aigae	Experimental	/2 Hours	EC30	1.8 mg/1
reaction						
products with						
1-chloro-2,3-						
epoxypropane						
and phenol	000000				11070	
Formaldehyde,	9003-36-5	Water flea	Experimental	21 days	NOEC	0.3 mg/l
oligomeric						
reaction						
products with						
1-chloro-2,3-						
epoxypropane						
and phenol						
Formaldehyde,	9003-36-5	Crustacea	Experimental	48 hours	EC50	1.6 mg/l
oligomeric						
reaction						
products with						
1-chloro-2,3-						
epoxypropane						
and phenol						
Formaldehyde,	9003-36-5	Rainbow trout	Experimental	96 hours	LC50	0.55 mg/l
oligomeric			F			
reaction						
products with						
1-chloro-2,3-						
epoxypropane						
and phenol						
4,4'-	25068-38-6	Water flea	Estimated	21 days	NOEC	0.3 mg/l
Isopropylidene	25000-50-0	water nea	Limated	21 days	NOLC	0.5 mg/1
diphenol,						
oligomeric						
reaction						
products with						
1-chloro-2,3-						
epoxypropane	25060 20 6	D: C 1	F ' / 1	0.6.1	1.050	1 41 /1
4,4'-	25068-38-6	Ricefish	Experimental	96 hours	LC50	1.41 mg/l
Isopropylidene						
diphenol,						
oligomeric						
reaction						
products with						
1-chloro-2,3-						
epoxypropane						
p-(2,3-	5026-74-4	Green algae	Experimental	96 hours	EC50	13 mg/l
epoxypropoxy) -N,N-bis(2,3-						
epoxypropyl)an						
iline						
p-(2,3-	5026-74-4	Water flea	Experimental	21 days	NOEC	0.42 mg/l
epoxypropoxy)						
-N,N-bis(2,3-						

epoxypropyl)an iline						
p-(2,3- epoxypropoxy) -N,N-bis(2,3- epoxypropyl)an iline	5026-74-4	Green algae	Experimental	96 hours	NOEC	4.2 mg/l
p-(2,3- epoxypropoxy) -N,N-bis(2,3- epoxypropyl)an iline	5026-74-4	Water flea	Estimated	48 hours	EC50	18 mg/l
p-(2,3- epoxypropoxy) -N,N-bis(2,3- epoxypropyl)an iline	5026-74-4	Common Carp	Experimental	96 hours	LC50	4.2 mg/l
Silica, vitreous	60676-86-0	Common Carp	Experimental	72 hours	LC50	>10,000 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Titanium dioxide	13463-67-7	Data not available or insufficient for	N/A	N/A	N/A	N/A
4,4'- Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-	25068-38-6	Estimated Hydrolysis		Hydrolytic half-life	<2 days (t 1/2)	Other methods
epoxypropane 4,4'- Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3- epoxypropane	25068-38-6	Experimental Biodegradation	28 days	BOD	0 % weight	OECD 301C - MITI test (I)
[3-(2,3- Epoxypropoxy) propyl] trimethoxysilan e	2530-83-8	Experimental Hydrolysis		Hydrolytic half-life	6.5 hours (t 1/2)	Other methods
[3-(2,3- Epoxypropoxy) propyl] trimethoxysilan e	2530-83-8	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	37 % weight	Other methods
Phenol- formaldehyde polymer,	28064-14-4	Laboratory Biodegradation	28 days	CO2 evolution	10 % weight	OECD 301B - Modified sturm or CO2

glycidyl ether						
p-(2,3- epoxypropoxy) -N,N-bis(2,3- epoxypropyl)an iline	5026-74-4	Experimental Hydrolysis		Hydrolytic half-life	4.1 days (t 1/2)	Other methods
p-(2,3- epoxypropoxy) -N,N-bis(2,3- epoxypropyl)an iline	5026-74-4	Experimental Biodegradation	29 days	CO2 evolution	≤10 % weight	OECD 301B - Modified sturm or CO2
Silica, vitreous	60676-86-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Siloxanes and Silicones, di- Me, reaction products with silica	67762-90-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol	9003-36-5	Experimental Biodegradation	28 days	CO2 evolution	16 % weight	OECD 301B - Modified sturm or CO2

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Titanium	13463-67-7	Experimental	42 days	Bioaccumulatio	9.6	Other methods
dioxide		BCF-Carp		n factor		
4,4'-	25068-38-6	Experimental	28 days	Bioaccumulatio	<=42	Other methods
Isopropylidene		BCF-Carp		n factor		
diphenol,						
oligomeric						
reaction						
products with						
1-chloro-2,3-						
epoxypropane						
[3-(2,3-	2530-83-8	Data not	N/A	N/A	N/A	N/A
Epoxypropoxy)		available or				
propyl]		insufficient for				
trimethoxysilan		classification				
e						
Phenol-	28064-14-4	Estimated		Bioaccumulatio	<=7.6	Estimated:
formaldehyde		Bioconcentrati		n factor		Bioconcentration factor
polymer,		on				
glycidyl ether						
p-(2,3-	5026-74-4	Estimated		Log Kow	0.87	Other methods
epoxypropoxy)		Bioconcentrati				
-N,N-bis(2,3-		on				
epoxypropyl)an						
iline						

Silica, vitreous	60676-86-0	Data not	N/A	N/A	N/A	N/A
		available or				
		insufficient for				
		classification				
Siloxanes and	67762-90-7	Data not	N/A	N/A	N/A	N/A
Silicones, di-		available or				
Me, reaction		insufficient for				
products with		classification				
silica						
Formaldehyde,	9003-36-5	Data not	N/A	N/A	N/A	N/A
oligomeric		available or				
reaction		insufficient for				
products with		classification				
1-chloro-2,3-						
epoxypropane						
and phenol						

12.4. Mobility in soil

Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

See Section 11.1 Information on toxicological effects

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. 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/IATA/IMDG: Not restricted for transport.

SECTION 15: Regulatory information

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

Carcinogenicity

<u>Ingredient</u>	<u>CAS Nbr</u>	<u>Classification</u>	Regulation
Titanium dioxide	13463-67-7	Grp. 2B: Possible human	International Agency
		carc.	for Research on Cancer

Global inventory status

Contact 3M for more information. The components of this product are in compliance with the chemical notification requirements of TSCA.

15.2. Chemical Safety Assessment

Not applicable

SECTION 16: Other information

List of relevant H statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H341	Suspected of causing genetic defects.
H411	Toxic to aquatic life with long lasting effects.

Revision information:

Section 2: <125ml Precautionary - Disposal information was added.

CLP: Ingredient table information was modified.

Label: CLP Classification information was modified.

Label: CLP Percent Unknown information was modified.

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

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

Section 9: Property description for optional properties information was modified.

Section 11: Acute Toxicity table information was modified.

Section 11: Cancer Hazards information information was deleted.

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

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

Section 11: Reproductive Toxicity Table information was modified.

Section 11: Respiratory Sensitization Table information was modified.

Section 11: Serious Eye Damage/Irritation Table information was modified.

Section 11: Skin Corrosion/Irritation Table information was modified.

Section 11: Skin Sensitization Table information was modified.

Section 11: Target Organs - Repeated Table information was modified.

Section 12: Component ecotoxicity information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12:Bioccumulative potential information information was modified.

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

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications.

Scotch-Weld(TM) DP-760 Off-White: Part B
3M United Kingdom MSDSs are available at www.3M.com/uk

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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

Scotch-Weld(TM) DP-760 Off-White: 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:

Acute Toxicity, Category 3 - Acute Tox. 3; H311 Serious Eye Damage/Eye Irritation, Category 1 - Eye Dam. 1; H318 Skin Corrosion/Irritation, Category 1B - Skin Corr. 1B; H314

Skin Sensitization, Category 1A - Skin Sens. 1A; 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) | GHS06 (Skull and crossbones) | GHS09 (Environment) |





Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt
Triethylenetetramine	112-24-3	203-950-6	60 - 70
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	500-033-5	20 - 30
Diethylenetriamine	111-40-0	203-865-4	0.5 - 1.5
2-(2-Aminoethylamino)ethanol	111-41-1	203-867-5	< 1
2-Piperazin-1-ylethylamine	140-31-8	205-411-0	< 1
3,6,9-Triazaundecamethylenediamine	112-57-2	203-986-2	< 1

HAZARD STATEMENTS:

H311 Toxic in contact with skin.

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

H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P260A Do not breathe vapours.

P280D Wear protective gloves, protective clothing, and eye/face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/shower.

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

present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTRE or doctor/physician.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

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

<=125 ml Hazard statements

H311 Toxic in contact with skin.

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

<=125 ml Precautionary statements

Prevention:

P260A Do not breathe vapours.

P280D Wear protective gloves, protective clothing, and eye/face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with

water/shower.

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

present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTRE or doctor/physician.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

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

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EC No.	REACH Registration No.	% by Wt	Classification
Triethylenetetramine	112-24-3	203-950-6		60 - 70	Acute Tox. 3, H311; Skin Corr. 1B, H314; Skin Sens. 1A, H317; Aquatic Chronic 3, H412
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	500-033-5	01- 2119456619- 26	20 - 30	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 2, H411
Glass, oxide, chemicals	65997-17-3	266-046-0		5 - 10	Substance with a Community level exposure limit in the workplace
Titanium dioxide	13463-67-7	236-675-5	01- 2119489379- 17	1 - 5	Substance with a Community level exposure limit in the workplace
Siloxanes and Silicones, di-Me, reaction products with silica	67762-90-7			1 - 5	Substance with a Community level exposure limit in the workplace
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]		ELINCS 484-050-2	01- 0000020228- 74	0.5 - 1.5	Aquatic Acute 1, H400,M=10; Aquatic Chronic 1, H410,M=10
Diethylenetriamine	111-40-0	203-865-4		0.5 - 1.5	Acute Tox. 4, H312; Acute Tox. 4, H302; Skin Corr. 1B, H314; Skin Sens. 1, H317 Acute Tox. 2, H330
2-(2-Aminoethylamino)ethanol	111-41-1	203-867-5		< 1	Skin Corr. 1B, H314; Skin Sens. 1, H317; Repr. 1B, H360Df; STOT SE 3, H335
3,6,9-Triazaundecamethylenediamine	112-57-2	203-986-2		< 1	Acute Tox. 3, H311; Acute Tox. 4, H302; Skin Corr.

				1B, H314; Skin Sens. 1, H317; Aquatic Chronic 2, H411
2-Piperazin-1-ylethylamine	140-31-8	205-411-0		Acute Tox. 3, H311; Acute Tox. 4, H302; Skin Corr. 1B, H314; Skin Sens. 1B, H317; Aquatic Chronic 3, H412

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.

Eve 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 carbon dioxide or dry chemical extinguisher to extinguish.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

SubstanceConditionAldehydes.During combustion.Amine compounds.During combustion.Carbon monoxide.During combustion.Carbon dioxide.During combustion.Oxides of nitrogen.During combustion.

5.3. Advice for fire-fighters

No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Place in a 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 or professional use only. Do not use in a confined area with minimal air exchange. Do not handle until all safety precautions have been read and understood. 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. Use personal protective equipment (eg. gloves, respirators...) as required.

7.2. Conditions for safe storage including any incompatibilities

Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Store away from heat. Store away from acids. Store away from strong bases.

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
Diethylenetriamine	111-40-0	UK HSC	TWA:4.3 mg/m3(1 ppm)	SKIN
Titanium dioxide	13463-67-7	UK HSC	TWA(Inhalable):10 mg/m3;TWA(respirable):4 mg/m³	
Glass, oxide, chemicals	65997-17-3	UK HSC	TWA(as fiber):5 mg/m3(1 fibers/ml)	
Glass, oxide, chemicals	65997-17-3	Manufacturer determined	TWA(as dust):10 mg/m3	
Silicon dioxide	67762-90-7	UK HSC	TWA(as inhalable dust):6 mg/m3;TWA(as respirable dust):2.4 mg/m3	

UK HSC: UK Health and Safety Commission

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling

Biological limit values

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

8.2. Exposure controls

8.2.1. Engineering controls

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

8.2.2. Personal protective equipment (PPE)

Eye/face protection

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

Full face shield.

Indirect vented goggles.

Skin/hand protection

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

MaterialThickness (mm)Breakthrough TimeButyl rubber.No data availableNo data availablePolymer laminateNo data availableNo data available

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

Respiratory protection

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

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

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical stateSolid.Specific Physical Form:Paste

Appearance/Odouroff-white; amine odour.Odour thresholdNo data available.

pH Not applicable.

Boiling point/boiling range Not applicable.

Melting point Not applicable.

Flammability (solid, gas) Not classified

Explosive properties Not classified

Oxidising properties Not classified

Flash point >=100 °C [Test Method:Closed Cup]

Autoignition temperatureNot applicable.Flammable Limits(LEL)Not applicable.Flammable Limits(UEL)Not applicable.Vapour pressureNot applicable.

Relative density 0.79 - 0.85 [*Ref Std*: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. No data available. **Decomposition temperature** Viscosity No data available. 0.79 - 0.85 g/ml **Density**

9.2. Other information

EU Volatile Organic CompoundsNo data available.Molecular weightNo data available.Percent volatile1 % weight

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4 Conditions to avoid

Heat.

10.5 Incompatible materials

Strong bases.

Water

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 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

Allergic respiratory reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest. May cause additional health effects (see below).

Skin contact

Toxic in contact with skin.

Corrosive (skin burns): Signs/symptoms may include localised redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

Eye contact

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

Ingestion

May be harmful if swallowed.

Gastrointestinal corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea; blood in the faeces and/or vomitus may also be seen. May cause additional health effects (see below).

Additional Health Effects:

Reproductive/Developmental Toxicity:

Contains a chemical or chemicals which can cause birth defects or other reproductive harm.

Additional information:

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

Toxicological Data

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE200 - 1,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE2,000 - 5,000 mg/kg
Triethylenetetramine	Dermal	Rabbit	LD50 550 mg/kg
Triethylenetetramine	Ingestion	Rat	LD50 2,500 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	Rat	LD50 > 1,600 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Rat	LD50 > 1,000 mg/kg
Glass, oxide, chemicals	Dermal		LD50 estimated to be > 5,000 mg/kg
Glass, oxide, chemicals	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Siloxanes and Silicones, di-Me, reaction products with silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Siloxanes and Silicones, di-Me, reaction products with silica	Inhalation- Dust/Mist	Rat	LC50 > 0.691 mg/l

	(4 hours)		
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Rat	LD50 > 5,110 mg/kg
Titanium dioxide	Inhalation-	Rat	LC50 > 6.82 mg/l
	Dust/Mist		
	(4 hours)		
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Reaction mass of 12-hydroxy-N-[2-[(1-	Dermal	Rat	LD50 > 2,000
oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-			
oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-			
alkandiylbis[12-hydroxyoctadecanamide]			
Reaction mass of 12-hydroxy-N-[2-[(1-	Inhalation-	Rat	LC50 > 6.3
oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-	Dust/Mist		
oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-	(4 hours)		
alkandiylbis[12-hydroxyoctadecanamide]			
Reaction mass of 12-hydroxy-N-[2-[(1-	Ingestion	Rat	LD50 > 2,000
oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-			
oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-			
alkandiylbis[12-hydroxyoctadecanamide]	- 1	70 1111	VD50 ((0 #
3,6,9-Triazaundecamethylenediamine	Dermal	Rabbit	LD50 660 mg/kg
3,6,9-Triazaundecamethylenediamine	Ingestion	Rat	LD50 2,140 mg/kg
2-Piperazin-1-ylethylamine	Dermal	Rabbit	LD50 865 mg/kg
2-Piperazin-1-ylethylamine	Ingestion	Rat	LD50 1,470 mg/kg
Diethylenetriamine	Dermal	Rabbit	LD50 1,045 mg/kg
Diethylenetriamine	Inhalation-	Rat	LC50 > 0.07 mg/l
	Dust/Mist		
	(4 hours)	ļ	
Diethylenetriamine	Ingestion	Rat	LD50 819 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Triethylenetetramine	Rabbit	Corrosive
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Rabbit	Mild irritant
Glass, oxide, chemicals	Professio nal judgemen t	No significant irritation
Siloxanes and Silicones, di-Me, reaction products with silica	Rabbit	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]	Rabbit	No significant irritation
2-Piperazin-1-ylethylamine	Rabbit	Corrosive
Diethylenetriamine	Rabbit	Corrosive

Serious Eye Damage/Irritation

Name	Species	Value
Triethylenetetramine	Rabbit	Corrosive
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Rabbit	Moderate irritant
Glass, oxide, chemicals	Professio nal judgemen t	No significant irritation
Siloxanes and Silicones, di-Me, reaction products with silica	Rabbit	No significant irritation
Titanium dioxide	Rabbit	No significant irritation
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]	Rabbit	Mild irritant
2-Piperazin-1-ylethylamine	Rabbit	Corrosive
Diethylenetriamine	Rabbit	Corrosive

Skin Sensitisation

Name	Species	Value
Triethylenetetramine	Guinea	Sensitising
Themylenetetranime	pig	Sensusing
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	Human	Sensitising
epoxypropane	and animal	
Siloxanes and Silicones, di-Me, reaction products with silica	Human	Not classified
	and animal	
Titanium dioxide	Human	Not classified
	and animal	
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amino]alkyl]octadecanamide,	Mouse	Not classified
12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadecanamide and N,N'-1,2-alkandiylbis[12-hydroxyoctadecanamide]		
2-Piperazin-1-ylethylamine	Guinea	Sensitising
	pig	
Diethylenetriamine	Guinea	Sensitising
	pig	

Respiratory Sensitisation

respiratory sensitisation				
Name	Species	Value		
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Human	Not classified		
Diethylenetriamine	Human	Sensitising		

Germ Cell Mutagenicity

Name	Route	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	In vivo	Not mutagenic
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	In Vitro	Some positive data exist, but the data are not sufficient for classification
Glass, oxide, chemicals	In Vitro	Some positive data exist, but the data are not sufficient for classification
Siloxanes and Silicones, di-Me, reaction products with silica	In Vitro	Not mutagenic
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic
2-Piperazin-1-ylethylamine	In vivo	Not mutagenic
2-Piperazin-1-ylethylamine	In Vitro	Some positive data exist, but the data are not sufficient for classification
Diethylenetriamine	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-	Dermal	Mouse	Some positive data exist, but the data are not
chloro-2,3-epoxypropane			sufficient for classification
Glass, oxide, chemicals	Inhalation	Multiple	Some positive data exist, but the data are not
		animal	sufficient for classification
		species	
Siloxanes and Silicones, di-Me, reaction products with silica	Not	Mouse	Some positive data exist, but the data are not
	specified.		sufficient for classification
Titanium dioxide	Ingestion	Multiple	Not carcinogenic
		animal	
		species	
Titanium dioxide	Inhalation	Rat	Carcinogenic.
Diethylenetriamine	Dermal	Multiple	Not carcinogenic
		animal	
		species	

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not classified for female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not classified for male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	Not classified for development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not classified for development	Rat	NOAEL 750 mg/kg/day	2 generation
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Siloxanes and Silicones, di-Me, reaction products with silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
2-Piperazin-1-ylethylamine	Ingestion	Not classified for female reproduction	Rat	NOAEL 598 mg/kg/day	premating & during gestation
2-Piperazin-1-ylethylamine	Ingestion	Not classified for male reproduction	Rat	NOAEL 409 mg/kg/day	32 days
2-Piperazin-1-ylethylamine	Ingestion	Not classified for development	Rat	NOAEL 899 mg/kg/day	premating & during gestation
Diethylenetriamine	Ingestion	Not classified for male reproduction	Rat	NOAEL 300 mg/kg/day	28 days
Diethylenetriamine	Ingestion	Not classified for development	Rat	NOAEL 300 mg/kg/day	premating & during gestation
Diethylenetriamine	Ingestion	Not classified for female reproduction	Rat	NOAEL 30 mg/kg/day	premating & during gestation

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
2-Piperazin-1-ylethylamine	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Diethylenetriamine	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
4,4'- Isopropylidenediphenol, oligomeric reaction products with 1-chloro- 2,3-epoxypropane	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
4,4'- Isopropylidenediphenol, oligomeric reaction products with 1-chloro- 2,3-epoxypropane	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
4,4'-	Ingestion	auditory system	Not classified	Rat	NOAEL	28 days

Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		heart endocrine system hematopoietic system liver eyes kidney and/or bladder			1,000 mg/kg/day	
Glass, oxide, chemicals	Inhalation	respiratory system	Not classified	Human	NOAEL not available	occupational exposure
Siloxanes and Silicones, di-Me, reaction products with silica	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.01 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	Not classified	Human	NOAEL Not available	occupational exposure
2-Piperazin-1- ylethylamine	Ingestion	heart endocrine system hematopoietic system liver nervous system kidney and/or bladder	Not classified	Rat	NOAEL 598 mg/kg/day	28 days
Diethylenetriamine	Ingestion	endocrine system liver kidney and/or bladder	Not classified	Rat	NOAEL 1,210 mg/kg/day	90 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 Nbr	Organism	Type	Exposure	Test endpoint	Test result
Triethylenetetra	112-24-3	Water flea	Experimental	48 hours	EC50	31.1 mg/l
mine						
Triethylenetetra	112-24-3	Guppy	Experimental	96 hours	LC50	570 mg/l
mine						
Triethylenetetra	112-24-3	Green algae	Experimental	72 hours	EC50	20 mg/l
mine						
4,4'-	25068-38-6	Rainbow trout	Experimental	96 hours	LC50	1.2 mg/l
Isopropylidene						
diphenol,						
oligomeric						
reaction						
products with						
1-chloro-2,3-						
epoxypropane						
4,4'-	25068-38-6	Green Algae	Experimental	72 hours	EC50	>11 mg/l

Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane 4,4'- Isopropylidene	25068-38-6	Water flea	Estimated	48 hours	LC50	0.95 mg/l
diphenol, oligomeric reaction products with 1-chloro-2,3- epoxypropane						
4,4'- Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Green Algae	Experimental	72 hours	NOEC	4.2 mg/l
4,4'- Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Water flea	Experimental	21 days	NOEC	0.3 mg/l
Glass, oxide, chemicals	65997-17-3	Zebra Fish	Experimental	96 hours	LC50	>1,000 mg/l
Glass, oxide, chemicals	65997-17-3	Water flea	Experimental	72 hours	EC50	>1,000 mg/l
Glass, oxide, chemicals	65997-17-3	Green algae	Experimental	72 hours	EC50	>1,000 mg/l
Glass, oxide, chemicals	65997-17-3	Green algae	Experimental	72 hours	NOEC	>=1,000 mg/l
Siloxanes and Silicones, di- Me, reaction products with silica	67762-90-7		Data not available or insufficient for classification			
Titanium dioxide	13463-67-7	Fathead minnow	Experimental	96 hours	LC50	>100 mg/l
Titanium dioxide	13463-67-7	Water flea	Experimental	48 hours	EC50	>100 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	EC50	>10,000 mg/l
Titanium dioxide	13463-67-7	Diatom	Experimental	72 hours	NOEC	5,600 mg/l
Diethylenetria mine	111-40-0	Water flea	Experimental	48 hours	EC50	16 mg/l
Diethylenetria	111-40-0	Green Algae	Experimental	72 hours	EC50	1,164 mg/l

mine						
Diethylenetria	111-40-0	Guppy	Experimental	96 hours	LC50	430 mg/l
mine	111-40-0	Сирру	Experimental	90 Hours	LC30	430 Hig/1
Diethylenetria	111-40-0	Green algae	Experimental	72 hours	NOEC	10 mg/l
mine	111-40-0	Green argae	Experimental	72 Hours	NOLC	10 mg/1
Diethylenetria	111-40-0	Three-spined	Experimental	28 days	NOEC	>10 mg/l
mine	111-40-0	stickleback	Experimental	20 days	NOLC	10 mg/1
Diethylenetria	111-40-0	Water flea	Experimental	21 days	NOEC	5.6 mg/l
mine	111-40-0	water fiea	Experimental	21 days	NOLC	3.0 mg/1
Reaction mass	484-050-2	Common Carp	Experimental	96 hours	LC50	>100 mg/l
of 12-hydroxy-	404-030-2	Common Carp	Experimental	90 Hours	LC30	7100 Hig/1
N-[2-[(1-						
oxodecyl)amin						
o]alkyl]octadec						
anamide, 12-						
hydroxy-N-[2-						
[(1-						
oxooctyl)amino						
]alkyl]octadeca						
namide and						
N,N'-1,2-						
alkandiylbis[12						
-						
hydroxyoctade						
canamide]						
Reaction mass	484-050-2	Green Algae	Experimental	72 hours	EC50	0.025 mg/l
of 12-hydroxy-						
N-[2-[(1-						
oxodecyl)amin						
o]alkyl]octadec						
anamide, 12-						
hydroxy-N-[2-						
[(1-						
oxooctyl)amino						
]alkyl]octadeca						
namide and						
N,N'-1,2- alkandiylbis[12						
aikailuiyibis[12						
hydroxyoctade						
canamide]						
Reaction mass	484-050-2	Green Algae	Experimental	72 hours	NOEC	0.007 mg/l
of 12-hydroxy-		1				
N-[2-[(1-						
oxodecyl)amin						
o]alkyl]octadec						
anamide, 12-						
hydroxy-N-[2-						
[(1-						
oxooctyl)amino						
]alkyl]octadeca						
namide and						
N,N'-1,2-						
alkandiylbis[12						
-						

hydroxyoctade						
canamide]						
Reaction mass	484-050-2	Water flea	Experimental	21 days	NOEC	>100 mg/l
of 12-hydroxy-						
N-[2-[(1-						
oxodecyl)amin						
o]alkyl]octadec						
anamide, 12-						
hydroxy-N-[2-						
[(1-						
oxooctyl)amino						
]alkyl]octadeca						
namide and						
N,N'-1,2-						
alkandiylbis[12						
-						
hydroxyoctade						
canamide]						
2-(2-	111-41-1	Fathead	Experimental	96 hours	LC50	640 mg/l
Aminoethylami		minnow				
no)ethanol						
2-(2-	111-41-1	Green algae	Experimental	72 hours	EC50	353.6 mg/l
Aminoethylami		oreen urgue	Z.np • min• mwi	72 110 0115		
no)ethanol						
2-Piperazin-1-	140-31-8	Golden Orfe	Experimental	96 hours	LC50	368 mg/l
	140-31-6	Goldell Offe	Experimental	90 Hours	LC30	306 Hig/1
ylethylamine	140.21.0	777 . O	E 1	40.1	EG50	22 //
2-Piperazin-1-	140-31-8	Water flea	Experimental	48 hours	EC50	32 mg/l
ylethylamine		ļ			ļ	
2-Piperazin-1-	140-31-8	Green Algae	Experimental	72 hours	EC50	>1,000 mg/l
ylethylamine						
2-Piperazin-1-	140-31-8	Green Algae	Experimental	72 hours	NOEC	31 mg/l
ylethylamine			1			
3,6,9-	112-57-2	Guppy	Experimental	96 hours	LC50	420 mg/l
Triazaundecam		Cuppy	Z.np • min• mwi	90 110 4115		1.20
ethylenediamin						
_						
e 3,6,9-	112-57-2	Water flea	Experimental	48 hours	EC50	14.6 mg/l
	112-37-2	water nea	Experimental	48 nours	EC30	14.6 mg/1
Triazaundecam						
ethylenediamin						
e						
3,6,9-	112-57-2	Green Algae	Experimental	72 hours	EC50	6.8 mg/l
Triazaundecam						
ethylenediamin						
e						
3,6,9-	112-57-2	Green Algae	Experimental	72 hours	NOEC	0.5 mg/l
Triazaundecam			F			
ethylenediamin						
e						
	<u> </u>	I .		<u> </u>	I	

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Triethylenetetra	112-24-3	Experimental	20 days	BOD	0 % weight	OECD 301D - Closed
mine		Biodegradation				bottle test
4,4'-	25068-38-6	Experimental	28 days	BOD	0 %	OECD 301C - MITI

nethods
ii cui cus
301D - Closed
est
nethods
301F -
301F -
netric
netric metry
netric
netric metry
netric metry nethods
netric metry

Scotch-Weld(T)	M) DP-760	Off-White:	Part A
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Triazaundecam	Biodegradation		bottle test
ethylenediamin			
e			

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration		Test result	Protocol
Triethylenetetra mine		Experimental BCF-Carp	42 days	Bioaccumulatio n factor		OECD 305E - Bioaccumulation flow- through fish test
4,4'- Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Experimental BCF-Carp	28 days	Bioaccumulatio n factor	<=42	OECD 305E - Bioaccumulation flow- through fish test
Glass, oxide, chemicals	65997-17-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Siloxanes and Silicones, di- Me, reaction products with silica	67762-90-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Titanium dioxide	13463-67-7	Experimental BCF-Carp	42 days	Bioaccumulatio n factor	9.6	Other methods
Diethylenetria mine	111-40-0	Experimental BCF-Carp	42 days	Bioaccumulatio n factor	≤6.3	OECD 305E - Bioaccumulation flow- through fish test
Reaction mass of 12-hydroxy-N-[2-[(1-oxodecyl)amin o]alkyl]octadec anamide, 12-hydroxy-N-[2-[(1-oxooctyl)amino]alkyl]octadeca namide and N,N'-1,2-alkandiylbis[12-hydroxyoctade canamide]		Data not available or insufficient for classification	N/A		N/A	N/A
2-(2- Aminoethylami no)ethanol	111-41-1	Experimental BCF-Carp	42 days	Bioaccumulatio n factor	<3.7	OECD 305A- Bioaccum. Seq Static
2-Piperazin-1- ylethylamine	140-31-8	Experimental Bioconcentrati on		Log Kow	0.3	Other methods
3,6,9-	112-57-2	Estimated		Log Kow	-7.3	Estimated: Octanol-

Triazaundecam	Bioconcentrati		water partition
ethylenediamin	on		coefficient
e			

12.4. Mobility in soil

Please contact manufacturer for more details

12.5. Results of the PBT and vPvB assessment

No information available at this time, contact manufacturer for more details

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

See Section 11.1 Information on toxicological effects

Dispose of completely cured (or polymerised) material in a permitted industrial waste facility. As a disposal alternative, incinerate uncured product in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. If no other disposal options are available, waste product that has been completely cured or polymerised may be placed in a landfill properly designed for industrial waste. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

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

EU waste code (product as sold)

08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances

20 01 27* Paint, inks, adhesives and resins containing dangerous substances

SECTION 14: Transportation information

ADR: UN3259 Amines, Solid, Corrosive, N.O.S (Triethylenetetramine); 8; II; (E); C8

IMDG: UN3259 Amines, Solid, Corrosive, N.O.S (Triethylenetetramine); 8; II; EmS: F-A, S-B

IATA: UN3259 Amines, Solid, Corrosive, N.O.S (Triethylenetetramine); 8; II

SECTION 15: Regulatory information

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

Carcinogenicity

IngredientCAS NbrClassificationRegulationTitanium dioxide13463-67-7Grp. 2B: Possible human carc.International Agency for Research on Cancer

Global inventory status

Contact 3M for more information. The components of this product are in compliance with the chemical notification

requirements of TSCA.

15.2. Chemical Safety Assessment

Not applicable

H302

SECTION 16: Other information

Harmful if swallowed

List of relevant H statements

11302	Halliful II Swallowcu.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H335	May cause respiratory irritation.
H360Df	May damage the unborn child. Suspected of damaging fertility.
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:

Label: CLP Precautionary - Disposal information was deleted.

Label: CLP Precautionary - Response information was modified. Section 12: Component ecotoxicity information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12:Bioccumulative potential information information was modified.

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