

Safety Data Sheet

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 18-9782-6
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Transportation version number: 7.00 (07/05/2015)

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-110, Grey

Product identification numbers

FS-9100-4020-3

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

Structural adhesive.

1.3. Details of the supplier of the substance or mixture

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.

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:

18-9088-8, 18-9079-7

TRANSPORTATION INFORMATION

KIT LABEL

2.2. Label elements

CLP REGULATION (EC) No 1272/2008

SIGNAL WORD

DANGER!

Symbols:

3M Scotch-Weld DP-110, Grey

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

Pictograms



HAZARD STATEMENTS:

H318 Causes serious eye damage. H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P280B Wear protective gloves and eye/face protection.

Avoid release to the environment. P273

Response:

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

and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor/physician. P310 P333 + P313If skin irritation or rash occurs: Get medical advice/attention.

Disposal:

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

regulations.

SUPPLEMENTAL INFORMATION

Supplemental Hazard Statements:

EUH205 Contains epoxy constituents. May produce an allergic reaction.

Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive

Symbol(s)





Irritant

Dangerous for the environment

Contains:

Consult the component labels for disclosable ingredients.

Risk phrases

R41 Risk of serious damage to eyes.

R38 Irritating to skin.

Page: 2 of 3

3M Scotch-Weld DP-110, Grey

R43 May cause sensitisation by skin contact.

R51/53 Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Safety phrases

S24 Avoid contact with skin.

S37/39A Wear suitable gloves and eye protection.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

Special provisions concerning the labelling of certain substances

Contains epoxy resins. See information supplied by manufacturer.

Notes on labelling

For the list of disclosed ingredients, please see the labels for Part A (18-9079-7) and Part B (18-9088-8).

Revision information:

Revision Changes:

Kit: Component document group number(s) information was modified.

Copyright information was modified.

Label: CLP Precautionary - Response information was modified.

Page: 3 of 3



Safety Data Sheet

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 Document group:
 18-9088-8
 Version number:
 10.00

 Revision date:
 22/06/2015
 Supersedes date:
 09/12/2013

Transportation version number: 1.00 (10/08/2011)

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) Epoxy Structural Adhesive DP-110 Grey (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:

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





Ingredient CAS Nbr % by Wt 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro- 25068-38-6 60 - 100

2,3-epoxypropane

HAZARD STATEMENTS:

H319 Causes serious eye irritation. H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

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.

<=125 ml Precautionary statements

Prevention:

P280E Wear protective gloves.

Response:

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

1% of the mixture consists of components of unknown acute oral toxicity.

Contains 1% of components with unknown hazards to the aquatic environment.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
4,4'-Isopropylidenediphenol, oligomeric	25068-38-6	NLP 500-033-	60 - 100	Skin Irrit. 2, H315; Eye Irrit. 2,
reaction products with 1-chloro-2,3-		5		H319; Skin Sens. 1, H317;
epoxypropane				Aquatic Chronic 2, H411 (CLP)
Acrylic copolymer	Trade Secret		10 - 30	
Terphenyl, hydrogenated	61788-32-7	EINECS 262-	5 - 10	Aquatic Chronic 4, H413 (Self
		967-7		Classified)
Titanium dioxide	13463-67-7	EINECS 236-	1 - 5	
		675-5		
Polyphenyls, quater- and higher, partially	68956-74-1	EINECS 273-	0 - 1.5	
hydrogenated		316-1		

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

Please refer to section 15 for any applicable Notas that have been applied to the above components

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.
Irritant vapours or gases.

Condition

During combustion. 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

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

6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Store away from heat. Store away from oxidising agents.

7.3. Specific end use(s)

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

IngredientCAS Nbr
Itanium dioxideAgency
13463-67-7Limit type
UK HSCAdditional comments
TWA(Inhalable):10

mg/m3;TWA(respirable):4 mg/m^3

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:

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:

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

Respiratory protection

None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid. **Specific Physical Form:** Paste

Appearance/Odour White, Very slight odour. **Odour threshold** No data available. Not applicable.

>=200 °C [Details:Epoxy resin] Boiling point/boiling range

Melting point Not applicable. Flammability (solid, gas) Not applicable. **Explosive properties** Not classified **Oxidising properties** Not classified

Flash point >=150 °C [Details:Epoxy resin]

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

Relative density 1.09 - 1.13 [*Ref Std*:WATER=1]

Water solubility

Solubility- non-water

Partition coefficient: n-octanol/water

Evaporation rate

Vapour density

Decomposition temperature

No data available.
No data available.
No data available.
No data available.
20 - 80 Pa-s [@ 23 °C]

Density 1.11 g/cm³

9.2. Other information

Volatile organic compounds (VOC)Not applicable.Percent volatile0 % weightVOC less H2O & exempt solventsNot applicable.

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.

10.5 Incompatible materials

Strong oxidising agents.

10.6 Hazardous decomposition products

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

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not agree with the 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.

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

Toxicological Data

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-	Dermal	Rat	LD50 > 1,600 mg/kg
chloro-2,3-epoxypropane			
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-	Ingestion	Rat	LD50 > 1,000 mg/kg
chloro-2,3-epoxypropane			
Acrylic copolymer	Dermal	Rabbit	LD50 > 5,000 mg/kg
Acrylic copolymer	Ingestion	Rat	LD50 > 5,000 mg/kg
Terphenyl, hydrogenated	Dermal	Rabbit	LD50 6,800 mg/kg
Terphenyl, hydrogenated	Inhalation-	Rat	LC50 > 11.1 mg/l
	Dust/Mist		
	(4 hours)		
Terphenyl, hydrogenated	Ingestion	Rat	LD50 > 10,000 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation-	Rat	LC50 > 6.82 mg/l
	Dust/Mist		
	(4 hours)		
Titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Rabbit	Mild irritant
Acrylic copolymer	Professio nal judgemen t	Minimal irritation
Terphenyl, hydrogenated	Rabbit	No significant irritation
Titanium dioxide	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Rabbit	Moderate irritant
Acrylic copolymer	Professio nal judgemen t	Mild irritant
Terphenyl, hydrogenated	Rabbit	No significant irritation

_			
	Titanium dioxide	Rabbit	No significant irritation
_			-

Skin Sensitisation

Name	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	Human	Sensitising
epoxypropane	and	
	animal	
Terphenyl, hydrogenated	Human	Not sensitising
Titanium dioxide	Human	Not sensitising
	and	
	animal	

Respiratory Sensitisation

Name	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	Human	Some positive data exist, but the data are not
epoxypropane		sufficient for classification

Germ Cell Mutagenicity

Name	Route	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	In vivo	Not mutagenic
epoxypropane	III VIVO	Not inutagenic
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	In Vitro	Some positive data exist, but the data are not
epoxypropane		sufficient for classification
Terphenyl, hydrogenated	In vivo	Not mutagenic
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	In vivo	Not mutagenic

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
Titanium dioxide	Ingestion	Multiple animal species	Not carcinogenic
Titanium dioxide	Inhalation	Rat	Carcinogenic.

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Name Route Value		Species	Test result	Exposure Duration	
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not toxic to female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation	
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not toxic to male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation	
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	Not toxic to development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis	
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not toxic to development	Rat	NOAEL 750 mg/kg/day	2 generation	
Terphenyl, hydrogenated	Ingestion	Not toxic to female reproduction	Rat	NOAEL 81 mg/kg/day	2 generation	
Terphenyl, hydrogenated	Ingestion	Not toxic to male reproduction	Rat	NOAEL 62 mg/kg/day	2 generation	
Terphenyl, hydrogenated	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	2 generation	

Target Organ(s)

Specific Target Organ Toxicity - single exposure

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

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
4,4'- Isopropylidenediphenol, oligomeric reaction products with 1-chloro- 2,3-epoxypropane	Dermal	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,000 mg/kg/day	2 years
4,4'- Isopropylidenediphenol, oligomeric reaction products with 1-chloro- 2,3-epoxypropane	Dermal	nervous system	All data are negative	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	All data are negative	Rat	NOAEL 1,000 mg/kg/day	28 days
Terphenyl, hydrogenated	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.5 mg/l	90 days
Terphenyl, hydrogenated	Ingestion	endocrine system blood liver kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 144 mg/kg/day	14 weeks
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 0.010 mg/l	2 years
Titanium dioxide	Inhalation	pulmonary fibrosis	All data are negative	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

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

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

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
Acrylic	Trade Secret		Data not			
copolymer			available or			
			insufficient for			
			classification			
Polyphenyls,	68956-74-1		Data not			
quater- and			available or			

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higher, partially			insufficient for classification			
hydrogenated						
4,4'- Isopropylidene	25068-38-6	Ricefish	Laboratory	96 hours	LC50	1.41 mg/l
diphenol, oligomeric reaction						
products with 1-chloro-2,3-						
epoxypropane						
Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Water flea	Laboratory	21 days	NOEC	0.3 mg/l
Terphenyl, hydrogenated	61788-32-7		Data not available or insufficient for classification			
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
Titanium dioxide	13463-67-7	Water flea	Experimental	30 days	NOEC	3 mg/l
Titanium dioxide	13463-67-7	Crustacea other	Experimental	96 hours	EC50	>300 mg/l
Titanium dioxide	13463-67-7	Fish	Experimental	30 days	NOEC	>=1,000 mg/l

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Acrylic	Trade Secret	Data not	N/A	N/A	N/A	N/A
copolymer		available or				
		insufficient for				
		classification				
Polyphenyls,	68956-74-1	Data not	N/A	N/A	N/A	N/A
quater- and		available or				
higher,		insufficient for				
partially		classification				
hydrogenated						
4,4'-	25068-38-6	Laboratory		Hydrolytic	<2 days (t 1/2)	Other methods
Isopropylidene		Hydrolysis		half-life		
diphenol,						
oligomeric						
reaction						
products with						
1-chloro-2,3-						
epoxypropane						
4,4'-	25068-38-6	Laboratory	28 days	BOD	0 % weight	OECD 301C - MITI

Isopropylidene		Biodegradation				test (I)
diphenol,						
oligomeric						
reaction						
products with						
1-chloro-2,3-						
epoxypropane						
Terphenyl,	61788-32-7	Laboratory	28 days	BOD	6 % weight	OECD 301C - MITI
hydrogenated		Aquatic				test (I)
		Biodegrad				
		Aerobic				
Titanium	13463-67-7	Data not	N/A	N/A	N/A	N/A
dioxide		available or				
		insufficient for				
		classification				

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Polyphenyls, quater- and higher, partially hydrogenated	68956-74-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4,4'- Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Laboratory BCF - Other	28 days	Bioaccumulati on factor	<42	Other methods
Terphenyl, hydrogenated	61788-32-7	Laboratory Bioaccumulati on	60 days	Bioaccumulati on factor	6300	Other methods
Titanium dioxide	13463-67-7	Experimental BCF - Other	42 days	Bioaccumulati on factor	9.6	Other methods

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

Dans, 11 of 1

during incineration processes. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

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

EU waste code (product as sold)

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

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

SECTION 14: Transportation information

ADR: UN3082 Environmentally Hazardous Substance, Liquid, N.O.S. (Liquid Epoxy Resin); 9; III; (E); M6

IMDG: UN3082 Environmentally Hazardous Substance, Liquid, N.O.S. (Liquid Epoxy Resin); 9; III; EmS: F-A, S-F; Marine

Pollutant (Liquid Epoxy Resin)

IATA: FORBIDDEN: IATA PRESSURE TEST ACC. 5.0.2.9 NOT PERFORMED ON PACKAGE.

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 material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. 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

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.
H413	May cause long lasting harmful effects to aquatic life.

Revision information:

Revision Changes:

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

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

Section 01: 1.3. Details of the supplier of the safety data sheet heading information was modified.

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

Section 12: Component ecotoxicity information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12:Bioccumulative potential information information was modified.

Copyright information was modified.

Label: Signal Word information was modified.

Section 8: Occupational exposure limit table information was modified.

OEL Reg Agency Desc information was modified.

Section 3: Reference to section 15 for Nota info information was modified.

Telephone header information was modified.

Company Telephone information was modified.

Section 11: Acute Toxicity table information was modified.

Section 11: Carcinogenicity Table information was modified.

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

Section 11: Germ Cell Mutagenicity Table information was modified.

Section 11: Skin Sensitization Table information was modified.

Section 11: Respiratory Sensitization Table information was modified.

Section 11: Reproductive Toxicity Table information was modified.

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

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

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

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

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

Section 5: Fire - Advice for fire fighters information information was modified.

Section 6: Accidental release personal information information was modified.

Section 7: Precautions safe handling information information was modified.

Section 8: Personal Protection - Eye information information was modified.

Section 8: Personal Protection - Skin/hand information information was modified.

Section 8: Respiratory protection information information was added.

Section 8: Occupational exposure limit table information was added.

Section 12: No PBT/vPvB information available warning information was added.

Section 11: Disclosed components not in tables text information was added.

Section 12: Classification Warning information was added.

Section 11: Classification disclaimer information was added.

Section 11: Aspiration Hazard text information was added.

Section 8: 8.1.1 Biological limit values table heading information was added.

Section 8: BLV information was added.

Label: CLP <125ml - Header information was added.

Label: CLP <125ml Hazard - Header information was added.

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

Label: CLP <125ml Precautionary - Header information was added.

Label: CLP <125ml Precautionary - Prevention - Header information was added.

 $Section\ 2{:}\ {<}125ml\ Precautionary\ -\ Prevention\ information\ was\ added.$

Label: CLP <125ml Precautionary - Response - Header information was added.

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

Section 11: Respiratory Sensitization table - Name heading information was added.

Section 11: Respiratory Sensitization table - Species heading information was added.

Section 11: Respiratory Sensitization table - Value heading information was added.

Section 11: Skin Sensitization table - Name heading information was added.

Section 11: Skin Sensitization table - Species heading information was added.

Section 11: Skin Sensitization table - Value heading information was added.

- Section 11: Serious Eye Damage/Irritation table Name heading information was added. Section 11: Serious Eye Damage/Irritation table - Species heading information was added. Section 11: Serious Eye Damage/Irritation table - Value heading information was added. Section 11: Skin Corrosion/Irritation table - Name heading information was added. Section 11: Skin Corrosion/Irritation table - Species heading information was added. Section 11: Skin Corrosion/Irritation table - Value heading information was added. Section 11: Germ Cell Mutagenicity table - Name heading information was added. Section 11: Germ Cell Mutagenicity table - Route heading information was added. Section 11: Germ Cell Mutagenicity table - Value heading information was added. Section 11: Specific Target Organ Toxicity - repeated exposure table - Name heading information was added. Section 11: Specific Target Organ Toxicity - repeated exposure table - Route heading information was added. Section 11: Specific Target Organ Toxicity - repeated exposure table - Target Organ(s) heading information was added. Section 11: Specific Target Organ Toxicity - repeated exposure table - Value heading information was added. Section 11: Specific Target Organ Toxicity - repeated exposure table - Species heading information was added. Section 11: Specific Target Organ Toxicity - repeated exposure table - Test Result heading information was added. Section 11: Specific Target Organ Toxicity - repeated exposure table - Exposure Duration heading information was added. Section 11: Specific Target Organ Toxicity - single exposure text information was added. Section 11: Reproductive and/or Developmental Effects table - Name heading information was added. Section 11: Reproductive and/or Developmental Effects table - Route heading information was added. Section 11: Reproductive and/or Developmental Effects table - Value heading information was added. Section 11: Reproductive and/or Developmental Effects table - Species heading information was added. Section 11: Reproductive and/or Developmental Effects table - Test Result heading information was added. Section 11: Reproductive and/or Developmental Effects text information was added. Section 11: Carcinogenicity table - Name heading information was added. Section 11: Carcinogenicity table - Route heading information was added. Section 11: Carcinogenicity table - Species heading information was added. Section 11: Carcinogenicity table - Value heading information was added. Section 8: glove data - Material heading information was added. Section 8: glove data - Thickness heading information was added. Section 8: glove data - Breakthrough Time heading information was added. Section 8: glove data value information was added. Section 03: Reference to H statement explanation in Section 016 information was added. Section 8: Skin protection - recommended gloves information information was deleted.
- Risk phrase information was deleted.
- Safety phrase information was deleted.
- Section 8: Respiratory protection recommended respirators guide information was deleted.

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

- Section 2: Contains heading information was deleted.
- Section 2: Safety phrases heading information was deleted.
- Section 16: List of relevant R-phrases information was deleted.
- Section 2: Label ingredient information information was deleted.
- Section 2: Indication of danger heading information was deleted.
- Section 16: List of relevant R phrase information information was deleted.
- Section 2: Risk phrases heading information was deleted.
- Section 2: Indication of danger information information was deleted.
- Section 2: Notes on labelling heading information was deleted.
- Section 2: Special provisions concerning the labelling of certain substances heading information was deleted.
- Section 2: Label remarks information was deleted.
- Section 2: Additional label requirements phrase information was deleted.
- Label: CLP Supplemental Hazard Statements information was deleted.
- Label: CLP Supplemental Hazard Statements Header information was deleted.
- Label: CLP Supplemental Information Header information was deleted.
- Section 11: Aspiration Hazard Table information was deleted.
- Section 11: Classification disclaimer information was deleted.
- Section 11: Carcinogenicity heading information was deleted.
- Section 11: Exposure Duration table heading information was deleted.

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Section 11: Test Result table heading information was deleted.

Section 11: Target Organs - Single Table information was deleted.

Section 11: Cancer Hazards information information was deleted.

Section 3: Reference to R and H statement explanation in Section 16 information was deleted.

Section 12: Classification Warning information was deleted.

Section 12: PBT/vPvB table CAS No. column heading information was deleted.

Section 12: PBT/vPvB table CAS No. column heading information was deleted.

Section 12: PBT/vPvB table PBT/vPvB Status column heading information was deleted.

Section 12: PBT/vPvB table row information was deleted.

Section 2: 2.2 & 2.3. DSD/DPD heading information was deleted.

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

Label: Graphic Text information was deleted.

Section 2: R phrase reference information was deleted.

Label: Graphic information was deleted.

Label: Graphic information was deleted.

Label: Graphic Text information was deleted.

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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

Scotch-Weld(tm) Epoxy Structural Adhesive DP-110 Grey (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 2 - Skin Irrit. 2; H315

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





Ingredient Fatty acids, C18-unsatd., dimers, reaction products with	CAS Nbr 68410-23-1	% by Wt 10 - 30
polyethylenepolyamines 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-	25068-38-6	1 - 5
2,3-epoxypropane Triethylenetetramine	112-24-3	< 5

HAZARD STATEMENTS:

H318 Causes serious eye damage. H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS

Prevention:

P280B Wear protective gloves and eye/face protection.

Response:

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

and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTRE or doctor/physician.
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

H318 Causes serious eye damage. H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

<=125 ml Precautionary statements

Prevention:

P280B Wear protective gloves and eye/face protection.

Response:

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

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present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTRE or doctor/physician. P333 + P313If skin irritation or rash occurs: Get medical advice/attention.

2% of the mixture consists of components of unknown acute oral toxicity. 15% of the mixture consists of components of unknown acute dermal toxicity.

Contains 86% of components with unknown hazards to the aquatic environment.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
Mercaptan terminated polymer	Trade Secret		60 - 90	
Fatty acids, C18-unsatd., dimers, reaction	68410-23-1		10 - 30	Skin Irrit. 2, H315; Eye Dam. 1,
products with polyethylenepolyamines				H318; Skin Sens. 1, H317
				(Vendor)
Terphenyl, hydrogenated	61788-32-7	EINECS 262-	5 - 10	Aquatic Chronic 4, H413 (Self
		967-7		Classified)
Polyphenyls, quater- and higher, partially	68956-74-1	EINECS 273-	< 5	
hydrogenated		316-1		
4,4'-Isopropylidenediphenol, oligomeric	25068-38-6	NLP 500-033-	1 - 5	Skin Irrit. 2, H315; Eye Irrit. 2,
reaction products with 1-chloro-2,3-		5		H319; Skin Sens. 1, H317;
epoxypropane				Aquatic Chronic 2, H411 (CLP)
Triethylenetetramine	112-24-3	EINECS 203-	< 5	Acute Tox. 3, H311; Skin Corr.
		950-6		1B, H314; Skin Sens. 1A, H317;
				Aquatic Chronic 3, H412 (CLP)
2,4,6-Tris(dimethylaminomethyl)phenol	90-72-2	EINECS 202-	1 - 5	Acute Tox. 4, H302; Skin Irrit.
		013-9		2, H315; Eye Irrit. 2, H319
				(CLP)
Carbon black	1333-86-4	EINECS 215-	0.1 - 1	
		609-9		

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

Please refer to section 15 for any applicable Notas that have been applied to the above components

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

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 for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately 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.

O . . . 1'4' . . .

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

Substance	<u>Condition</u>
Aldehydes.	During combustion.
Hydrocarbons.	During combustion.
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Hydrogen Chloride	During combustion.
Ketones.	During combustion.
Oxides of nitrogen.	During combustion.
Oxides of sulphur.	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. 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 dust created by cutting, sanding, grinding or machining. Decontaminate work surfaces frequently to avoid exposure by contact. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

7.2. Conditions for safe storage including any incompatibilities

Keep container tightly closed. 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

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

Carbon black 1333-86-4 UK HSC TWA: 3.5 mg/m³; STEL: 7

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.

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

Material Thickness (mm) Breakthrough Time

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Polymer laminate No data available No 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 - 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:

No data available.

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 state Liquid.
Specific Physical Form: Paste

Appearance/Odour Black colour; mercaptan odour

Odour threshold No data available. pН Not applicable. Boiling point/boiling range No data available. Boiling point/boiling range No data available. **Melting point** No data available. Not applicable. Flammability (solid, gas) Not classified **Explosive properties** Not classified Oxidising properties Flash point No data available. No data available. **Autoignition temperature** No data available. Flammable Limits(LEL) Flammable Limits(UEL) No data available

Relative density 1.08 - 1.11 [Ref Std:WATER=1]

Water solubility

Solubility- non-water

Partition coefficient: n-octanol/water

Evaporation rate

Vapour density

Decomposition temperature

No data available.
No data available.
No data available.
No data available.
Viscosity

Viscosity

No data available.
Viscosity

40 - 90 Pa-s [@ 23 °C]

Density 1.1 g/ml

9.2. Other information

Vapour pressure

Volatile organic compounds (VOC) 0 g/l

Percent volatile 0.00 % weight

VOC less H2O & exempt solvents 0 g/l

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.

10.5 Incompatible materials

Strong acids.

Strong oxidising agents.

10.6 Hazardous decomposition products

Substance

Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not agree with the EU material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 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. Dust from cutting, grinding, sanding or machining may cause irritation of the respiratory system: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, nose and throat pain.

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

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. Dust created by cutting, grinding, sanding, or machining may cause eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion

May be harmful if swallowed.

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

Toxicological Data

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

Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE2,000 - 5,000
			mg/kg
Mercaptan terminated polymer	Dermal	Rabbit	LD50 > 10,200 mg/kg
Mercaptan terminated polymer	Ingestion	Rat	LD50 2,600 mg/kg
Fatty acids, C18-unsatd., dimers, reaction products with	Ingestion	Rat	LD50 > 8,000 mg/kg
polyethylenepolyamines			
Terphenyl, hydrogenated	Dermal	Rabbit	LD50 6,800 mg/kg
Terphenyl, hydrogenated	Inhalation-	Rat	LC50 > 11.1 mg/l
	Dust/Mist		
	(4 hours)		
Terphenyl, hydrogenated	Ingestion	Rat	LD50 > 10,000 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-	Dermal	Rat	LD50 > 1,600 mg/kg
chloro-2,3-epoxypropane			
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-	Ingestion	Rat	LD50 > 1,000 mg/kg
chloro-2,3-epoxypropane			
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
Triethylenetetramine	Dermal	Rabbit	LD50 550 mg/kg
Triethylenetetramine	Ingestion	Rat	LD50 2,500 mg/kg
Carbon black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon black	Ingestion	Rat	LD50 > 8,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name		Value			
Terphenyl, hydrogenated	Rabbit	No significant irritation			
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	Rabbit	Mild irritant			
epoxypropane					
2,4,6-Tris(dimethylaminomethyl)phenol	Rabbit	Corrosive			
Triethylenetetramine	Rabbit	Corrosive			
Carbon black	Rabbit	No significant irritation			

Serious Eye Damage/Irritation

Name	Species	Value
Terphenyl, hydrogenated	Rabbit	No significant irritation
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Rabbit	Moderate irritant
2,4,6-Tris(dimethylaminomethyl)phenol	Rabbit	Corrosive
Triethylenetetramine	Rabbit	Corrosive
Carbon black	Rabbit	No significant irritation

Skin Sensitisation

Name	Species	Value
Terphenyl, hydrogenated	Human	Not sensitising
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	Human	Sensitising
epoxypropane	and	
	animal	
2,4,6-Tris(dimethylaminomethyl)phenol	Guinea	Some positive data exist, but the data are not
	pig	sufficient for classification
Triethylenetetramine	Guinea	Sensitising
	pig	

Respiratory Sensitisation

Respiratory Sensitisation		
Name	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	Human	Some positive data exist, but the data are not
epoxypropane		sufficient for classification

Germ Cell Mutagenicity

Name	Route	Value
Terphenyl, hydrogenated	In vivo	Not mutagenic
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	In vivo	Not mutagenic
epoxypropane		
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-	In Vitro	Some positive data exist, but the data are not
epoxypropane		sufficient for classification
2,4,6-Tris(dimethylaminomethyl)phenol	In Vitro	Not mutagenic
Carbon black	In Vitro	Not mutagenic
Carbon black	In vivo	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-	Dermal	Mouse	Some positive data exist, but the data are not
chloro-2,3-epoxypropane			sufficient for classification
Carbon black	Dermal	Mouse	Not carcinogenic
Carbon black	Ingestion	Mouse	Not carcinogenic
Carbon black	Inhalation	Rat	Carcinogenic.

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Terphenyl, hydrogenated	Ingestion	Not toxic to female reproduction	Rat	NOAEL 81 mg/kg/day	2 generation
Terphenyl, hydrogenated	Ingestion	Not toxic to male reproduction	Rat	NOAEL 62 mg/kg/day	2 generation
Terphenyl, hydrogenated	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 500 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not toxic to female reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not toxic to male reproduction	Rat	NOAEL 750 mg/kg/day	2 generation
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	Not toxic to development	Rabbit	NOAEL 300 mg/kg/day	during organogenesis
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not toxic to development	Rat	NOAEL 750 mg/kg/day	2 generation

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
Terphenyl, hydrogenated	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 0.5 mg/l	90 days
Terphenyl, hydrogenated	Ingestion	endocrine system blood liver kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 144 mg/kg/day	14 weeks
4,4'-	Dermal	liver	Some positive data exist, but the	Rat	NOAEL	2 years

Isopropylidenediphenol, oligomeric reaction products with 1-chloro- 2,3-epoxypropane			data are not sufficient for classification		1,000 mg/kg/day	
4,4'- Isopropylidenediphenol, oligomeric reaction products with 1-chloro- 2,3-epoxypropane	Dermal	nervous system	All data are negative	Rat	NOAEL 1,000 mg/kg/day	13 weeks
Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	auditory system heart endocrine system hematopoietic system liver eyes kidney and/or bladder	All data are negative	Rat	NOAEL 1,000 mg/kg/day	28 days
2,4,6- Tris(dimethylaminomethyl))phenol	Dermal	skin liver nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 125 mg/kg/day	28 days
2,4,6- Tris(dimethylaminomethyl))phenol	Dermal	auditory system hematopoietic system eyes	All data are negative	Rat	NOAEL 125 mg/kg/day	28 days
Carbon black	Inhalation	pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

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

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

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
Mercaptan	Trade Secret		Data not			
terminated			available or			
polymer			insufficient for			
			classification			
Polyphenyls,	68956-74-1		Data not			
quater- and			available or			
higher,			insufficient for			
partially			classification			
hydrogenated						
4,4'-	25068-38-6	Water flea	Experimental	21 days	NOEC	0.3 mg/l
Isopropylidene						
diphenol,						
oligomeric						
reaction						
products with						
1-chloro-2,3-						

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epoxypropane						
4,4'- Isopropylidene	25068-38-6	Ricefish	Experimental	96 hours	LC50	1.41 mg/l
diphenol,						
oligomeric						
reaction						
products with						
1-chloro-2,3-						
epoxypropane	112 24 2		F 1	061	1.050	570 /
Triethylenetetr amine	112-24-3	Guppy	Experimental	96 hours	LC50	570 mg/l
Triethylenetetr amine	112-24-3	Water flea	Experimental	48 hours	EC50	31.1 mg/l
Triethylenetetr amine	112-24-3	Green algae	Experimental	72 hours	EC50	20 mg/l
Terphenyl, hydrogenated	61788-32-7		Data not available or insufficient for classification			
2,4,6- Tris(dimethyla minomethyl)ph enol	90-72-2	Common Carp	Experimental	96 hours	LC50	175 mg/l
2,4,6- Tris(dimethyla minomethyl)ph enol	90-72-2	Grass Shrimp	Experimental	96 hours	LC50	718 mg/l
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepo lyamines	68410-23-1		Data not available or insufficient for classification			
Carbon black	1333-86-4		Data not available or insufficient for classification			

12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Mercaptan terminated polymer	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Polyphenyls, quater- and higher, partially hydrogenated	68956-74-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4,4'- Isopropylidene diphenol, oligomeric	25068-38-6	Laboratory Hydrolysis		Hydrolytic half-life	<2 days (t 1/2)	Other methods

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	Г	1	Г		1	T
reaction						
products with						
1-chloro-2,3-						
epoxypropane						
4,4'-	25068-38-6	Laboratory	28 days	BOD	0 % weight	OECD 301C - MITI
Isopropylidene		Biodegradation				test (I)
diphenol,						
oligomeric						
reaction						
products with						
1-chloro-2,3-						
epoxypropane						
Triethylenetetr	112-24-3	Experimental	20 days	BOD	0 % weight	OECD 301D - Closed
amine		Biodegradation				bottle test
Terphenyl,	61788-32-7	Experimental	28 days	BOD	6 % weight	OECD 301C - MITI
hydrogenated		Biodegradation				test (I)
2,4,6-	90-72-2	Experimental	28 days	BOD	4 % weight	OECD 301D - Closed
Tris(dimethyla		Biodegradation	-			bottle test
minomethyl)ph						
enol						
Fatty acids,	68410-23-1	Data not	N/A	N/A	N/A	N/A
C18-unsatd.,		available or				
dimers,		insufficient for				
reaction		classification				
products with						
polyethylenepo						
lyamines						
Carbon black	1333-86-4	Data not	N/A	N/A	N/A	N/A
		available or				
		insufficient for				
		classification				

12.3 : Bioaccumulative potential

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Mercaptan terminated	Trade Secret	Data not available or	N/A	N/A	N/A	N/A
polymer		insufficient for classification				
Polyphenyls, quater- and higher, partially hydrogenated	68956-74-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4,4'- Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	Laboratory BCF - Other	28 days	Bioaccumulati on factor	<42	Other methods
Triethylenetetr amine	112-24-3	Experimental BCF-Carp	42 days	Bioaccumulati on factor	<5.0	OECD 305E - Bioaccumulation flow- through fish test

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Terphenyl,	61788-32-7	Experimental	60 days	Bioaccumulati	6300	Other methods
hydrogenated		BCF-Carp		on factor		
2,4,6-	90-72-2	Experimental		Log Kow	-0.66	Other methods
Tris(dimethyla		Bioconcentrati				
minomethyl)ph		on				
enol						
Fatty acids,	68410-23-1	Data not	N/A	N/A	N/A	N/A
C18-unsatd.,		available or				
dimers,		insufficient for				
reaction		classification				
products with						
polyethylenepo						
lyamines						
Carbon black	1333-86-4	Data not	N/A	N/A	N/A	N/A
		available or				
		insufficient for				
		classification				

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. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials. If no other disposal options are available, waste product that has been completely cured or polymerised may be placed in a landfill properly designed for industrial waste. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

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

EU waste code (product as sold)

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

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

SECTION 14: Transportation information

ADR: Not restricted for transport. IMDG: Not restricted for transport. IATA: 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>	CAS Nbr	<u>Classification</u>	Regulation
Carbon black	1333-86-4	Grp. 2B: Possible human	International Agency
		carc.	for Research on Cancer

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. 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.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Revision information:

Revision Changes:

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

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

Section 01: 1.3. Details of the supplier of the safety data sheet heading information was modified.

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

Section 12: Component ecotoxicity information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12:Bioccumulative potential information information was modified.

Copyright information was modified.

Label: Signal Word information was modified.

Label: CLP Classification information was modified.

Label: CLP Precautionary - Prevention information was modified.

CLP: Ingredient table information was modified.

Section 8: Occupational exposure limit table information was modified.

OEL Reg Agency Desc information was modified.

Section 3: Reference to section 15 for Nota info information was modified.

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Telephone header information was modified.
Company Telephone information was modified.
Section 11: Acute Toxicity table information was modified.
Section 11: Skin Sensitization Table information was modified.
Section 11: Health Effects - Skin information information was modified.
Section 5: Fire - Advice for fire fighters information information was modified.
Section 7: Precautions safe handling information information was modified.
Section 7: Conditions safe storage information was modified.
Label: CLP Percent Unknown information was added.
Label: CLP Percent Unknown information was added.
Label: CLP Percent Unknown information was added.
Section 8: Occupational exposure limit table information was added.
Section 12: No PBT/vPvB information available warning information was added.
Section 12: Classification Warning information was added.
Section 11: Classification disclaimer information was added.
Section 11: Aspiration Hazard text information was added.
Section 8: 8.1.1 Biological limit values table heading information was added.
Section 8: BLV information was added.
Label: CLP <125ml - Header information was added.
Label: CLP <125ml Hazard - Header information was added.
Section 2: <125ml Hazard - Health information was added.
Section 2: <125ml Hazard - Environmental information was added.
Label: CLP <125ml Precautionary - Header information was added.
Label: CLP <125ml Precautionary - Prevention - Header information was added.
Section 2: <125ml Precautionary - Prevention information was added.
Label: CLP <125ml Precautionary - Response - Header information was added.
Section 2: <125ml Precautionary - Response information was added.
Section 11: Respiratory Sensitization table - Name heading information was added.
Section 11: Respiratory Sensitization table - Species heading information was added.
Section 11: Respiratory Sensitization table - Value heading information was added.
Section 11: Skin Sensitization table - Name heading information was added.
Section 11: Skin Sensitization table - Species heading information was added.
Section 11: Skin Sensitization table - Value heading information was added.
Section 11: Serious Eye Damage/Irritation table - Name heading information was added.
Section 11: Serious Eye Damage/Irritation table - Species heading information was added.
Section 11: Serious Eye Damage/Irritation table - Value heading information was added.
Section 11: Skin Corrosion/Irritation table - Name heading information was added.
Section 11: Skin Corrosion/Irritation table - Species heading information was added.
Section 11: Skin Corrosion/Irritation table - Value heading information was added.
Section 11: Germ Cell Mutagenicity table - Name heading information was added.
Section 11: Germ Cell Mutagenicity table - Route heading information was added.
Section 11: Germ Cell Mutagenicity table - Value heading information was added.
Section 11: Specific Target Organ Toxicity - repeated exposure table - Name heading information was added.
Section 11: Specific Target Organ Toxicity - repeated exposure table - Route heading information was added.
Section 11: Specific Target Organ Toxicity - repeated exposure table - Target Organ(s) heading information was added.
Section 11: Specific Target Organ Toxicity - repeated exposure table - Value heading information was added.
Section 11: Specific Target Organ Toxicity - repeated exposure table - Species heading information was added.
Section 11: Specific Target Organ Toxicity - repeated exposure table - Test Result heading information was added.
Section 11: Specific Target Organ Toxicity - repeated exposure table - Exposure Duration heading information was added.
Section 11: Specific Target Organ Toxicity - single exposure table - Name heading information was added.
Section 11: Specific Target Organ Toxicity - single exposure table - Route heading information was added.
Section 11: Specific Target Organ Toxicity - single exposure table - Target Organ(s) heading information was added.
Section 11: Specific Target Organ Toxicity - single exposure table - Value heading information was added.
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Section 11: Specific Target Organ Toxicity - single exposure table - Species heading information was added.

Section 11: Specific Target Organ Toxicity - single exposure table - Test Result heading information was added.

Section 11: Specific Target Organ Toxicity - single exposure table - Exposure Duration heading information was added.

- Section 11: Reproductive and/or Developmental Effects table Name heading information was added.
- Section 11: Reproductive and/or Developmental Effects table Route heading information was added.
- Section 11: Reproductive and/or Developmental Effects table Value heading information was added.
- Section 11: Reproductive and/or Developmental Effects table Species heading information was added.
- Section 11: Reproductive and/or Developmental Effects table Test Result heading information was added.
- Section 11: Reproductive and/or Developmental Effects text information was added.
- Section 11: Carcinogenicity table Name heading information was added.
- Section 11: Carcinogenicity table Route heading information was added.
- Section 11: Carcinogenicity table Species heading information was added.
- Section 11: Carcinogenicity table Value heading information was added.
- Section 8: glove data Material heading information was added.
- Section 8: glove data Thickness heading information was added.
- Section 8: glove data Breakthrough Time heading information was added.
- Section 8: glove data value information was added.
- Section 03: Reference to H statement explanation in Section 016 information was added.
- Section 8: Skin protection recommended gloves information information was deleted.
- Risk phrase information was deleted.
- Safety phrase information was deleted.
- Section 2: Contains heading information was deleted.
- Section 2: Safety phrases heading information was deleted.
- Section 16: List of relevant R-phrases information was deleted.
- Section 2: Label ingredient information information was deleted.
- Section 2: Indication of danger heading information was deleted.
- Section 16: List of relevant R phrase information information was deleted.
- Section 2: Risk phrases heading information was deleted.
- Section 2: Indication of danger information information was deleted.
- Section 2: Special provisions concerning the labelling of certain substances heading information was deleted.
- Section 2: Additional label requirements phrase information was deleted.
- Section 11: Classification disclaimer information was deleted.
- Section 11: Exposure Duration table heading information was deleted.
- Section 11: Test Result table heading information was deleted.
- Section 3: Reference to R and H statement explanation in Section 16 information was deleted.
- Section 12: Classification Warning information was deleted.
- Section 12: PBT/vPvB table CAS No. column heading information was deleted.
- Section 12: PBT/vPvB table CAS No. column heading information was deleted.
- $Section\ 12:\ PBT/vPvB\ table\ PBT/vPvB\ Status\ column\ heading\ information\ was\ deleted.$
- Section 12: PBT/vPvB table row information was deleted.
- Section 2: 2.2 & 2.3. DSD/DPD heading information was deleted.
- Section 2: R phrase reference information was deleted.
- Label: Graphic information was deleted.
- Label: Graphic information was deleted.
- Label: Graphic Text information was deleted.

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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