



Safety Data Sheet

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Transportation version number:	1.01 (01/08/2012)		

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

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

1.1. Product identifier

3M™ Scotch-Weld™ EC-9323-2 B/A Black Kit

Product identification numbers

FS-9100-3421-4 FS-9100-3991-6 FS-9100-4190-4 FS-9100-5126-7 FS-9100-5127-5

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

Industrial use.

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:

19-7919-4, 19-7921-0

TRANSPORTATION INFORMATION

FS-9100-3421-4, FS-9100-3991-6

Component 1

ADR/RID: UN3263, CORROSIVE SOLID, BASIC, ORGANIC, N.O.S., LIMITED QUANTITY, (3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)), (2,4,6-TRIS((DIMETHYLAMINO)METHYL) PHENOL), 8, II , (--), ADR Classification Code: C8.

IMDG-CODE: UN3263, CORROSIVE SOLID,BASIC,ORGANIC,N.O.S., (3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)), (2,4,6-TRIS((DIMETHYLAMINO)METHYL) PHENOL), 8., II ,

3M™ Scotch-Weld™ EC-9323-2 B/A Black Kit

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

ICAO/IATA: UN3263, CORROSIVE SOLID, BASIC, ORGANIC, N.O.S., (3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)), (2,4,6-TRIS((DIMETHYLAMINO)METHYL) PHENOL), 8., II , LIMITED QUANTITY.

Component 2

ADR/RID: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.LIMITED QUANTITY, (EPOXY RESIN), 9., III, (--), ADR Classification Code: M7.

IMDG-CODE: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (EPOXY RESIN), 9., III, LIMITED QUANTITY, Marine Pollutant, (EPOXY RESIN), EMS: FA,SF.

ICAO/IATA: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (EPOXY RESIN), 9., III, fish and tree marking may be required (> 5kg/l), LIMITED QUANTITY.

FS-9100-4190-4

Component 1

ADR/RID: UN3263, CORROSIVE SOLID, BASIC, ORGANIC, N.O.S., (3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)), (2,4,6-TRIS((DIMETHYLAMINO)METHYL) PHENOL), 8, II , (E), ADR Classification Code: C8.

IMDG-CODE: UN3263, CORROSIVE SOLID,BASIC,ORGANIC,N.O.S., (3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)), (2,4,6-TRIS((DIMETHYLAMINO)METHYL) PHENOL), 8., II , IMDG-Code segregation code: 18- ALKALIS, EMS: FA,SB.

ICAO/IATA: UN3263, CORROSIVE SOLID, BASIC, ORGANIC, N.O.S., (3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)), (2,4,6-TRIS((DIMETHYLAMINO)METHYL) PHENOL), 8., II .

Component 2

ADR/RID: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (EPOXY RESIN), 9., III, (E), ENVIRONMENTALLY HAZARDOUS, ADR Classification Code: M7.

IMDG-CODE: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (EPOXY RESIN), 9., III, Marine Pollutant, (EPOXY RESIN), EMS: FA,SF.

ICAO/IATA: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (EPOXY RESIN), 9., III, fish and tree marking may be required (> 5kg/l).

FS-9100-5126-7, FS-9100-5127-5

Component 1

ADR/RID: UN3263, CORROSIVE SOLID, BASIC, ORGANIC, N.O.S., LIMITED QUANTITY, (3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)), (2,4,6-TRIS((DIMETHYLAMINO)METHYL) PHENOL), 8, II , (--), ADR Classification Code: C8.

IMDG-CODE: UN3263, CORROSIVE SOLID,BASIC,ORGANIC,N.O.S., (3,3'-OXYBIS(ETHYLENEOXY)BIS(PROPYLAMINE)), (2,4,6-TRIS((DIMETHYLAMINO)METHYL) PHENOL), 8., II , IMDG-Code segregation code: 18- ALKALIS, LIMITED QUANTITY, EMS: FA,SB.

ICAO/IATA: FORBIDDEN: IATA PRESSURE TEST ACC. 5.0.2.9 NOT PERFORMED ONPACKAGE

Component 2

ADR/RID: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.LIMITED QUANTITY, (EPOXY RESIN), 9., III, (--), ADR Classification Code: M7.

IMDG-CODE: UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (EPOXY RESIN), 9., III, LIMITED QUANTITY, Marine Pollutant, (EPOXY RESIN), EMS: FA,SF.

ICAO/IATA: FORBIDDEN: IATA PRESSURE TEST ACC. 5.0.2.9 NOT PERFORMED ONPACKAGE

KIT LABEL

2.2. Label elements

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

Symbols

C	Corrosive.
N	Dangerous to environment.

Contains:

Consult the component labels for disclosable ingredients.

Risk phrases

R34	Causes burns.
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

S22	Do not breathe dust.
S23A	Do not breathe vapour.
S24	Avoid contact with skin.
S36/37/39B	Wear suitable protective clothing, gloves, and eye and face protection.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28C	After contact with skin, wash immediately with plenty of water for 15 minutes.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
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.

Revision information:

Revision Changes:

Section 1: Product identification numbers was modified.



Safety Data Sheet

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Document group:	19-7919-4	Version number:	5.05
Revision date:	30/07/2012	Supersedes date:	28/03/2012
Transportation version number:	1.00 (23/03/2011)		

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

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

1.1. Product identifier

3M™ Scotch-Weld™ EC-9323-2 B/A Black, (Part A)

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

Identified uses

Industrial use.

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

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

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

Indication of danger

Corrosive; C; R34

Sensitizing; R43

For full text of R phrases, see Section 16.

2.2. Label elements

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

Symbols

C Corrosive.

3M™ Scotch-Weld™ EC-9323-2 B/A Black, (Part A)**Contains:**

3,3'-oxybis(ethyleneoxy)bis(propylamine); Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine)

Risk phrases

R34 Causes burns.
R43 May cause sensitisation by skin contact.

Safety phrases

S22 Do not breathe dust.
S23A Do not breathe vapour.
S36/37/39B Wear suitable protective clothing, gloves, and eye and face protection.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28C After contact with skin, wash immediately with plenty of water for 15 minutes.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

2.3. Other hazards

May cause chemical gastrointestinal burns.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine)	68911-25-1		30 - 60	Xi:R38-41; R43 (Self Classified) Skin Irrit. 2, H315; Eye Dam. 1, H318; Skin Sens. 1, H317 (Self Classified)
Amine Terminated Butadiene Acrylonitrile Polymer	Trade Secret		10 - 30	
3,3'-oxybis(ethyleneoxy)bis(propylamine)	4246-51-9	EINECS 224-207-2	10 - 30	C:R34; R52/53 (Self Classified) Skin Corr. 1B, H314; Aquatic Chronic 3, H412 (Self Classified)
2,4,6-tris(dimethylaminomethyl)phenol	90-72-2	EINECS 202-013-9	7 - 13	Xn:R22; Xi:R36-38 (EU) Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319 (CLP)
Dimethyl siloxane, reaction product with silica	67762-90-7		5 - 10	
titanium dioxide	13463-67-7	EINECS 236-675-5	1 - 5	
bis[(dimethylamino)methyl]phenol	71074-89-0	EINECS 275-162-0	1 - 5	C:R34 (Vendor) Xn:R22 (Self Classified) Skin Corr. 1B, H314 (Vendor) Acute Tox. 4, H302 (Self Classified)
Toluene	108-88-3	EINECS 203-625-9	0.1 - 1	Repr.Cat.3:R63; F:R11; Xn:R48/20; Xn:R65; Xi:R38; R67 - Nota 4 (EU)

3M™ Scotch-Weld™ EC-9323-2 B/A Black, (Part A)

				Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; Repr. 2, H361d; STOT SE 3, H336; STOT RE 1, H372 (CLP)
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Please see section 16 for the full text of any R phrases and H statements referred to in this section

Please refer to section 15 for the 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

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.

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.

Inhalation

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

If swallowed

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

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

See Section 11.1 Information on toxicological effects

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

In case of fire: Use a fire fighting agent suitable for flammable liquids and solids such as dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Oxides of nitrogen.	During combustion.
Toxic vapour, gas, particulate.	During combustion.

5.3. Advice for fire-fighters

No unusual fire or explosion hazards 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. Warning: A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. 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 toxic, corrosivity or flammability 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. 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. 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 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**

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Toluene	108-88-3	Health and Safety Comm. (UK)	TWA: 191 mg/m ³ (50 ppm); STEL: 384 mg/m ³ (100 ppm)	Skin Notation
titanium dioxide	13463-67-7	Health and Safety Comm. (UK)	TWA(Inhalable):10 mg/m ³ ;TWA(respirable):4 mg/m ³	

Health and Safety Comm. (UK) : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

ppm: parts per million

mg/m³: milligrams per cubic metre

CEIL: Ceiling

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

Wear eye/face protection.

The following eye protection(s) are recommended: Safety glasses with side shields.
Indirect vented goggles.

Skin/hand protection

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

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

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

Half mask or full facepiece air-purifying respirator with P3 particulate filters.

Half facepiece or full facepiece air-purifying respirator suitable for 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	Off-white paste, amine odour.
pH	<i>Not applicable.</i>
Boiling point/boiling range	≥ 139 °C
Melting point	<i>Not applicable.</i>
Flammability (solid, gas)	Not classified
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	≥ 139 °C [<i>Test Method:</i> Closed Cup]
Autoignition temperature	<i>No data available.</i>
Flammable Limits(LEL)	<i>No data available.</i>
Flammable Limits(UEL)	<i>No data available.</i>
Vapour pressure	<i>No data available.</i>
Relative density	0.97 - 1.1 [<i>Ref Std:</i> WATER=1]
Water solubility	Nil
Partition coefficient: n-octanol/water	<i>No data available.</i>
Evaporation rate	Negligible
Vapour density	<i>No data available.</i>
Viscosity	70 - 155 Pa-s [<i>@ 23 °C</i>] [<i>Test Method:</i> Brookfield]
Density	0.97 - 1.1 g/cm ³ [<i>@ 20 °C</i>]

9.2. Other information

Hazardous air pollutants	0.5 - 0.6 % weight
Volatile organic compounds (VOC)	< 10 g/l
Percent volatile	<=1 % weight
VOC less H2O & exempt solvents	< 10 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.

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

Sparks and/or flames.

10.5 Incompatible materials

Strong acids.

10.6 Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
None known.	

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

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:

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.

Skin contact

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

3M™ Scotch-Weld™ EC-9323-2 B/A Black, (Part A)**Inhalation**

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause target organ effects after inhalation.

Ingestion

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 be harmful if swallowed. May cause target organ effects after ingestion.

Reproductive/Developmental Toxicity:

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

Toxicological Data**Acute Toxicity**

Name	Route	Species	Value
Overall product	Ingestion		No test data available; calculated ATE2,663 mg/kg
Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine)			No data available
3,3'-oxybis(ethyleneoxy)bis(propylamine)	Dermal	Rabbit	LD50 2,500 mg/kg
3,3'-oxybis(ethyleneoxy)bis(propylamine)	Ingestion	Rat	LD50 3,160 mg/kg
Amine Terminated Butadiene Acrylonitrile Polymer	Dermal	Rabbit	LD50 > 3,000 mg/kg
Amine Terminated Butadiene Acrylonitrile Polymer	Ingestion	Rat	LD50 > 15,300 mg/kg
2,4,6-tris(dimethylaminomethyl)phenol	Dermal	Rat	LD50 1,280 mg/kg
2,4,6-tris(dimethylaminomethyl)phenol	Ingestion	Rat	LD50 1,000 mg/kg
Dimethyl siloxane, reaction product with silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Dimethyl siloxane, reaction product with silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Dimethyl siloxane, reaction product with silica	Ingestion	Rat	LD50 > 5,110 mg/kg
bis[(dimethylamino)methyl]phenol	Ingestion		LD50 estimated to be 300 - 2,000 mg/kg
titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
titanium dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 7 mg/l
titanium dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
Toluene	Dermal	Rat	LD50 12,000 mg/kg
Toluene	Inhalation-Vapor (4 hours)	Rat	LC50 30 mg/l
Toluene	Ingestion	Rat	LD50 2,600 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine)		No data available
3,3'-oxybis(ethyleneoxy)bis(propylamine)		Corrosive
Amine Terminated Butadiene Acrylonitrile Polymer		No data available
2,4,6-tris(dimethylaminomethyl)phenol	Rabbit	Corrosive
Dimethyl siloxane, reaction product with silica	Rabbit	No significant irritation
bis[(dimethylamino)methyl]phenol		No data available

3M™ Scotch-Weld™ EC-9323-2 B/A Black, (Part A)

titanium dioxide		No significant irritation
Toluene		Irritant

Serious Eye Damage/Irritation

Name	Species	Value
Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine)		No data available
3,3'-oxybis(ethyleneoxy)bis(propylamine)		Corrosive
Amine Terminated Butadiene Acrylonitrile Polymer		No data available
2,4,6-tris(dimethylaminomethyl)phenol	Rabbit	Corrosive
Dimethyl siloxane, reaction product with silica	Rabbit	No significant irritation
bis[(dimethylamino)methyl]phenol		No data available
titanium dioxide		Mild irritant
Toluene		Moderate irritant

Skin Sensitisation

Name	Species	Value
Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine)		No data available
3,3'-oxybis(ethyleneoxy)bis(propylamine)		No data available
Amine Terminated Butadiene Acrylonitrile Polymer		Some positive data exist, but the data are not sufficient for classification
2,4,6-tris(dimethylaminomethyl)phenol	Guinea pig	Some positive data exist, but the data are not sufficient for classification
Dimethyl siloxane, reaction product with silica	Human and animal	Not sensitizing
bis[(dimethylamino)methyl]phenol		No data available
titanium dioxide		Not sensitizing
Toluene		Not sensitizing

Respiratory Sensitisation

Name	Species	Value
Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine)		No data available
3,3'-oxybis(ethyleneoxy)bis(propylamine)		No data available
Amine Terminated Butadiene Acrylonitrile Polymer		No data available
2,4,6-tris(dimethylaminomethyl)phenol		No data available
Dimethyl siloxane, reaction product with silica		No data available
bis[(dimethylamino)methyl]phenol		No data available
titanium dioxide		No data available
Toluene		No data available

Germ Cell Mutagenicity

Name	Route	Value
Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine)		No data available
3,3'-oxybis(ethyleneoxy)bis(propylamine)		No data available
Amine Terminated Butadiene Acrylonitrile Polymer		No data available
2,4,6-tris(dimethylaminomethyl)phenol	In Vitro	Not mutagenic
Dimethyl siloxane, reaction product with silica	In Vitro	Not mutagenic
bis[(dimethylamino)methyl]phenol		No data available
titanium dioxide	In Vitro	Not mutagenic
titanium dioxide	Ingestion	Not mutagenic
Toluene	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine)			No data available

3M™ Scotch-Weld™ EC-9323-2 B/A Black, (Part A)

3,3'-oxybis(ethyleneoxy)bis(propylamine)			No data available
Amine Terminated Butadiene Acrylonitrile Polymer			No data available
2,4,6-tris(dimethylaminomethyl)phenol			No data available
Dimethyl siloxane, reaction product with silica	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
bis[(dimethylamino)methyl]phenol			No data available
titanium dioxide	Ingestion		Not carcinogenic
titanium dioxide	Inhalation		Some positive data exist, but the data are not sufficient for classification
Toluene	Dermal		Some positive data exist, but the data are not sufficient for classification
Toluene	Ingestion		Some positive data exist, but the data are not sufficient for classification
Toluene	Inhalation		Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine)		No data available			
3,3'-oxybis(ethyleneoxy)bis(propylamine)		No data available			
Amine Terminated Butadiene Acrylonitrile Polymer		No data available			
2,4,6-tris(dimethylaminomethyl)phenol		No data available			
Dimethyl siloxane, reaction product with silica	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Dimethyl siloxane, reaction product with silica	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Dimethyl siloxane, reaction product with silica	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
bis[(dimethylamino)methyl]phenol		No data available			
titanium dioxide		No data available			
Toluene	Ingestion	Toxic to reproduction and/or development	Rat	LOAEL 520 mg/kg	
Toluene	Inhalation	Toxic to reproduction and/or development	Human	NOAEL N/A	

Lactation

Name	Route	Species	Value
Toluene	Not specified.		Some positive data exist, but the data are not sufficient for classification

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine)			No data available			
3,3'-oxybis(ethyleneoxy)bis(propylamine)	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Amine Terminated Butadiene Acrylonitrile Polymer			No data available			
2,4,6-tris(dimethylaminomethyl)phenol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Dimethyl siloxane, reaction product with silica			No data available			
bis[(dimethylamino)methyl]phenol			No data available			
titanium dioxide	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness		NOAEL 0.15 mg/l	
Toluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Toluene	Inhalation	immune system	Some positive data exist, but the data are not sufficient for classification		NOAEL N/A	
Toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness		NOAEL N/A	
Toluene	Ocular	lacrimation	Some positive data exist, but the		LOEL 7.5 mg/l	

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			data are not sufficient for classification			
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Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine)			No data available			
3,3'-oxybis(ethyleneoxy)bis(propylamine)			No data available			
Amine Terminated Butadiene Acrylonitrile Polymer			No data available			
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
Dimethyl siloxane, reaction product with silica	Inhalation	respiratory system silicosis	All data are negative	Human	NOAEL Not available	occupational exposure
bis[(dimethylamino)methyl]phenol			No data available			
titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification		NOEL 10 mg/m ³	
titanium dioxide	Inhalation	pulmonary fibrosis	All data are negative		NOAEL N/A	
Toluene	Inhalation	auditory system olfactory system	Causes damage to organs through prolonged or repeated exposure		NOAEL N/A	
Toluene	Inhalation	nervous system	Causes damage to organs through prolonged or repeated exposure		LOAEL 0.33 mg/l	
Toluene	Inhalation	eyes	Causes damage to organs through prolonged or repeated exposure		LOAEL 0.15-0.23 mg/l	

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Toluene	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification		LOAEL 2.3 mg/l	
Toluene	Inhalation	hematopoietic system immune system vascular system	Some positive data exist, but the data are not sufficient for classification		NOAEL N/A	
Toluene	Inhalation	heart kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		NOEL 4.7 mg/l	
Toluene	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification		NOEL 2.4 mg/l	
Toluene	Inhalation	bone, teeth, nails, and/or hair	Some positive data exist, but the data are not sufficient for classification		LOEL 1.1 mg/l	
Toluene	Inhalation	endocrine system	Some positive data exist, but the data are not sufficient for classification		LOEL 0.11 mg/l	
Toluene	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification		NOAEL 446 mg/kg/day	
Toluene	Ingestion	endocrine system	Some positive data exist, but the data are not sufficient for classification		NOEL N/A	
Toluene	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification		LOEL 600 mg/kg/day	
Toluene	Ingestion	heart	Some positive data exist, but the data are not sufficient for classification		NOEL 446 mg/kg/day	
Toluene	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification		LOEL 223 mg/kg/day	
Toluene	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification		NOEL 223 mg/kg/day	
Toluene	Ingestion	immune system	Some positive		LOEL 22	

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			data exist, but the data are not sufficient for classification		mg/kg/day	
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Aspiration Hazard

Name	Value
Fatty acids, C18-unsaturated, dimers, polymers with 3,3'-oxybis(ethyleneoxy)bis(propylamine)	Not an aspiration hazard
3,3'-oxybis(ethyleneoxy)bis(propylamine)	Not an aspiration hazard
Amine Terminated Butadiene Acrylonitrile Polymer	Not an aspiration hazard
2,4,6-tris(dimethylaminomethyl)phenol	Not an aspiration hazard
Dimethyl siloxane, reaction product with silica	Not an aspiration hazard
bis[(dimethylamino)methyl]phenol	Not an aspiration hazard
titanium dioxide	Not an aspiration hazard
Toluene	Aspiration hazard

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 be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity**Acute aquatic hazard:**

Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

No component test data available.

12.2. Persistence and degradability

No test data available.

12.3 : Bioaccumulative potential

No test data available.

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

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

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. 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. Incinerate uncured product in a permitted waste incineration facility.

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: UN3263; Corrosive solid, basic, organic, n.o.s. (3,3'-oxybis(ethyleneoxy)bis(propylamine))(2,4,6-tris((dimethylamino)methyl)phenol); Class 8; Packing group II; C8
IMDG: UN3263; Corrosive solid, basic, organic, n.o.s. (3,3'-oxybis(ethyleneoxy)bis(propylamine))(2,4,6-tris((dimethylamino)methyl)phenol); Class 8; Packing group II
IATA: UN3263; Corrosive solid, basic, organic, n.o.s. (3,3'-oxybis(ethyleneoxy)bis(propylamine))(2,4,6-tris((dimethylamino)methyl)phenol); Class 8; Packing group II

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>	<u>Regulation</u>
titanium dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Toluene	108-88-3	Gr. 3: Not classifiable	International Agency for Research on Cancer

Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korean Toxic Chemical 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 Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. 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

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
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.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

List of relevant R-phrases

R11	Highly flammable.
R22	Harmful if swallowed.
R34	Causes burns.
R36	Irritating to eyes.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R43	May cause sensitisation by skin contact.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R52/53	Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
R63	Possible risk of harm to the unborn child.
R65	Harmful: May cause lung damage if swallowed.
R67	Vapours may cause drowsiness and dizziness.

Revision information:

Revision Changes:

Section 1: Product name was modified.

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

Safety phrase was modified.

Section 8: Respiratory protection - recommended respirators was modified.

Page Heading: Product name was modified.

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

Section 2: Indication of danger information was modified.

Aspiration Hazard Table was modified.

Section 11: Acute Toxicity table was modified.

Carcinogenicity Table was modified.

Serious Eye Damage/Irritation Table was modified.

Germ Cell Mutagenicity Table was modified.

Skin Sensitisation Table was modified.

Respiratory Sensitisation Table was modified.

Lactation Table was modified.

Reproductive Toxicity Table was modified.

Skin Corrosion/Irritation Table was modified.

Target Organs - Repeated Table was modified.

Target Organs - Single Table was modified.

Section 5: Fire - Extinguishing media information was modified.

Section 6: Accidental release clean-up information was modified.

Section 13: Standard Phrase Category Waste GHS was modified.

Section 8: Respiratory protection - recommended respirators guide was added.

Section 2: R phrase reference was added.

Section 11: UN GHS Classification table heading was deleted.

Section 11: Lactation table - UN GHS Classification heading was deleted.

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



Safety Data Sheet

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Transportation version number:	1.00 (12/09/2011)		

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

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

1.1. Product identifier

3M™ Scotch-Weld™ EC-9323-2 B/A Black, (Part B)

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

Identified uses

Industrial use.

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

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

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

Indication of danger

Irritant; Xi; R36/38

Sensitizing; R43

Dangerous for the environment; N; R51/53

For full text of R phrases, see Section 16.

2.2. Label elements

SUPPLEMENTAL INFORMATION

Supplemental Hazard Statements:

EUH205 Contains epoxy constituents. May produce an allergic reaction.

3M™ Scotch-Weld™ EC-9323-2 B/A Black, (Part B)**Dangerous substances(67/548/EEC)/preparations(1999/45/EC) directive****Symbols**

Xi	Irritant.
N	Dangerous to environment.

Contains:

1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane; 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane

Risk phrases

R36/38	Irritating to eyes and skin.
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	Wear suitable gloves.
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.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Ingredient	CAS Nbr	EU Inventory	% by Wt	Classification
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	25068-38-6	NLP 500-033-5	40 - 70	Xi:R36-38; N:R51/53; R43 (EU) Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 2, H411 (CLP)
1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane	14228-73-0	EINECS 238-098-4	10 - 30	R43; R52/53 (Self Classified) Skin Sens. 1, H317; Aquatic Chronic 3, H412 (Self Classified)
Titanium dioxide	13463-67-7	EINECS 236-675-5	1 - 5	
Carbon black	1333-86-4	EINECS 215-609-9	1 - 5	
Oxide glass chemicals	65997-17-3	EINECS 266-046-0	1 - 5	
Dimethyl siloxane, reaction product with silica	67762-90-7		1 - 5	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane	2530-83-8	EINECS 219-784-2	0.5 - 1.5	Xi:R41 (Self Classified) Eye Dam. 1, H318 (Self Classified)

Please see section 16 for the full text of any R phrases and H statements referred to in this section
Please refer to section 15 for the 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

Eye contact

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

Inhalation

Remove person to fresh air. If you feel unwell, 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 flammable liquids and solids such as dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Aldehydes.	During combustion.
Hydrocarbons.	During combustion.
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.

5.3. Advice for fire-fighters

No unusual fire or explosion hazards 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. Warning: A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Refer to other sections of this SDS

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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 toxic, corrosivity or flammability 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. 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. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators...) as required.

7.2. Conditions for safe storage including any incompatibilities

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

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Carbon black	1333-86-4	Health and Safety Comm. (UK)	TWA: 3.5 mg/m ³ ; STEL: 7 mg/m ³	
Titanium dioxide	13463-67-7	Health and Safety Comm. (UK)	TWA(Inhalable):10 mg/m ³ ;TWA(respirable):4 mg/m ³	
Glass filaments	65997-17-3	Health and Safety Comm. (UK)	TWA(as fiber):5 mg/m ³ (1 fibers/ml)	
Oxide glass chemicals	65997-17-3	Manufacturer determined	TWA(as dust):10 mg/m ³	

Health and Safety Comm. (UK) : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

ppm: parts per million

mg/m³: milligrams per cubic metre

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CEIL: Ceiling

Derived no effect level (DNEL)

Ingredient	Degradation Product	Population	Human exposure pattern	DNEL
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		Worker	Dermal, Long-term exposure (8 hours), Systemic effects	8.3 mg/kg bw/d
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		Worker	Dermal, Short-term exposure, Systemic effects	8.3 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		Worker	Inhalation, Long-term exposure (8 hours), Systemic effects	12.3 mg/m ³
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		Worker	Inhalation, Short-term exposure, Systemic effects	12.3 mg/m ³

Predicted no effect concentrations (PNEC)

Ingredient	Degradation Product	Compartment	PNEC
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		Freshwater	0.003 mg/l
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		Freshwater sediments	0.5 mg/kg w.w.
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		Intermittent releases to water	0.013 mg/l
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		Marine water	0.0003 mg/l
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		Marine water sediments	0.5 mg/kg w.w.
4,4'-Isopropylidenediphenol,		Sewage Treatment Plant	10 mg/l

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oligomeric reaction products with 1-chloro-2,3-epoxypropane			
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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

Wear eye/face protection.

The following eye protection(s) are recommended: Safety glasses with side shields.

Indirect vented goggles.

Skin/hand protection

Wear protective gloves.

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

Polyvinyl chloride.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

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

Half mask P2 particulate respirator.

Half mask or full facepiece air-purifying respirator with P3 particulate filters.

Half facepiece or full facepiece air-purifying respirator suitable for 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 paste, epoxy odour.
pH	<i>Not applicable.</i>
Boiling point/boiling range	≥ 93.4 °C
Melting point	<i>Not applicable.</i>
Flammability (solid, gas)	Not classified
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	≥ 93.4 °C [<i>Test Method:</i> Closed Cup]
Autoignition temperature	<i>No data available.</i>
Flammable Limits(LEL)	<i>No data available.</i>
Flammable Limits(UEL)	<i>No data available.</i>
Vapour pressure	<i>No data available.</i>
Relative density	0.97 - 1.1 [<i>Ref Std:</i> WATER=1]

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Water solubility	Nil
Partition coefficient: n-octanol/water	No data available.
Evaporation rate	Negligible
Vapour density	No data available.
Viscosity	300 - 900 Pa-s [@ 23 °C] [<i>Test Method: Brookfield</i>]
Density	0.97 - 1.1 g/cm ³ [@ 20 °C]

9.2. Other information

Hazardous air pollutants	0 % weight
Volatile organic compounds (VOC)	0 g/l
Percent volatile	<=1.0 % 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.

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

10.5 Incompatible materials

Strong acids.

Strong oxidising agents.

10.6 Hazardous decomposition products

<u>Substance</u>	<u>Condition</u>
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None known.	
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SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labelling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

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:

3M™ Scotch-Weld™ EC-9323-2 B/A Black, (Part B)**Eye contact**

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

Skin contact

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

Inhalation

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

Ingestion

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

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

Toxicological Data**Acute Toxicity**

Name	Route	Species	Value
Overall product	Ingestion		No test data available; calculated ATE >5,000 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
1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane	Dermal	Rabbit	LD50 2,500 mg/kg
1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane	Ingestion	Rat	LD50 2,450 mg/kg
Dimethyl siloxane, reaction product with silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Dimethyl siloxane, reaction product with silica	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Dimethyl siloxane, reaction product with silica	Ingestion	Rat	LD50 > 5,110 mg/kg
Carbon black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon black	Ingestion	Rat	LD50 > 8,000 mg/kg
Oxide glass chemicals	Dermal		LD50 estimated to be > 5,000 mg/kg
Oxide glass chemicals	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Titanium dioxide	Dermal	Rabbit	LD50 > 10,000 mg/kg
Titanium dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 7 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 mg/l
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Ingestion	Rat	LD50 7,010 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
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4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		Mild irritant
1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane		Mild irritant
Dimethyl siloxane, reaction product with silica	Rabbit	No significant irritation
Carbon black		No significant irritation
Oxide glass chemicals		No data available
Titanium dioxide		No significant irritation
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane		Mild irritant

Serious Eye Damage/Irritation

Name	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		Moderate irritant
1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane		Mild irritant
Dimethyl siloxane, reaction product with silica	Rabbit	No significant irritation
Carbon black		No data available
Oxide glass chemicals		No data available
Titanium dioxide		Mild irritant
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane		Corrosive

Skin Sensitisation

Name	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		Sensitising
1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane		Sensitising
Dimethyl siloxane, reaction product with silica	Human and animal	Not sensitizing
Carbon black		No data available
Oxide glass chemicals		No data available
Titanium dioxide		Not sensitizing
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane		Some positive data exist, but the data are not sufficient for classification

Respiratory Sensitisation

Name	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		Some positive data exist, but the data are not sufficient for classification
1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane		No data available
Dimethyl siloxane, reaction product with silica		No data available
Carbon black		No data available
Oxide glass chemicals		No data available
Titanium dioxide		No data available
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane		No data available

Germ Cell Mutagenicity

Name	Route	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	In vivo	Some positive data exist, but the data are not sufficient for classification
1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane		No data available
Dimethyl siloxane, reaction product with silica	In Vitro	Not mutagenic
Carbon black	In vivo	Some positive data exist, but the data are not sufficient for classification
Oxide glass chemicals	In Vitro	Some positive data exist, but the data are not sufficient for classification
Titanium dioxide	In Vitro	Not mutagenic
Titanium dioxide	Ingestion	Not mutagenic
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

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Name	Route	Species	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal		Some positive data exist, but the data are not sufficient for classification
1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane			No data available
Dimethyl siloxane, reaction product with silica	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
Carbon black	Dermal		Not carcinogenic
Carbon black	Ingestion		Not carcinogenic
Carbon black	Inhalation		Carcinogenic.
Oxide glass chemicals	Inhalation		Carcinogenic.
Titanium dioxide	Ingestion		Not carcinogenic
Titanium dioxide	Inhalation		Some positive data exist, but the data are not sufficient for classification
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Dermal		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	Dermal	Not toxic to reproduction and/or development		NOAEL 300 mg/kg/day	
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Ingestion	Not toxic to reproduction and/or development		NOAEL 750 mg/kg/day	
1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane		No data available			
Dimethyl siloxane, reaction product with silica	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Dimethyl siloxane, reaction product with silica	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Dimethyl siloxane, reaction product with silica	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Carbon black		No data available			
Oxide glass chemicals		No data available			
Titanium dioxide		No data available			
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Ingestion	Not toxic to reproduction and/or development		NOAEL 1,500 mg/kg/day	

Target Organ(s)
Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
4,4'-	Inhalation	respiratory	All data are		Irritation	

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Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane		irritation	negative		Negative	
1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Dimethyl siloxane, reaction product with silica			No data available			
Carbon black	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Oxide glass chemicals	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
Titanium dioxide	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		Irritation Positive	
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane	Inhalation	respiratory irritation	All data are negative		Irritation Negative	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
4,4'-Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	liver	Some positive data exist, but the data are not sufficient for classification		NOEL 1 mg/kg/day	
4,4'-Isopropylidene diphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Dermal	nervous system	All data are negative		NOAEL 1,000 mg/kg/day	
4,4'-Isopropylidene diphenol, oligomeric	Ingestion	auditory system heart endocrine system blood	All data are negative		NOAEL 1,000 mg/kg/day	

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reaction products with 1-chloro-2,3-epoxypropane		hematopoietic system liver eyes kidney and/or bladder				
1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane			No data available			
Dimethyl siloxane, reaction product with silica	Inhalation	respiratory system silicosis	All data are negative	Human	NOAEL Not available	occupational exposure
Carbon black	Inhalation	heart	Some positive data exist, but the data are not sufficient for classification		NOEL N/A	
Carbon black	Inhalation	pneumoconiosis	Some positive data exist, but the data are not sufficient for classification		NOAEL N/A	
Oxide glass chemicals	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification		NOEL N/A	
Titanium dioxide	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification		NOEL 10 mg/m ³	
Titanium dioxide	Inhalation	pulmonary fibrosis	All data are negative		NOAEL N/A	
[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	All data are negative		NOAEL 1,000 mg/kg/day	

Aspiration Hazard

Name	Value
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane	Not an aspiration hazard
1,4-Bis[(2,3-epoxypropoxy)methyl]cyclohexane	Not an aspiration hazard
Dimethyl siloxane, reaction product with silica	Not an aspiration hazard
Carbon black	Not an aspiration hazard
Oxide glass chemicals	Not an aspiration hazard
Titanium dioxide	Not an aspiration hazard
[3-(2,3-Epoxypropoxy)propyl] trimethoxysilane	Not an aspiration hazard

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 be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labelling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:

Not acutely toxic to aquatic life by GHS criteria.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

No component test data available.

12.2. Persistence and degradability

No test data available.

12.3 : Bioaccumulative potential

No test data available.

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

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

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. 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. Incinerate uncured product in a permitted waste incineration facility.

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.

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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: UN3077; Environmentally hazardous substance, solid, n.o.s. (epoxy resin); Class 9; Packing group III; M7
IMDG: UN3077; Environmentally hazardous substance, solid, n.o.s. (epoxy resin); Class 9; Packing group III
IATA: UN3077; Environmentally hazardous substance, solid, n.o.s. (epoxy resin); Class 9; Packing group III

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>	<u>Regulation</u>
Carbon black	1333-86-4	Grp. 2B: Possible human carc.	International Agency for Research on Cancer
Titanium dioxide	13463-67-7	Grp. 2B: Possible human carc.	International Agency 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

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.

List of relevant R-phrases

R36	Irritating to eyes.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R43	May cause sensitisation by skin contact.
R51/53	Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Revision information:

Revision Changes:

Section 1: Product name was modified.

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

Safety phrase was modified.
Section 8: Respiratory protection - recommended respirators was modified.
Page Heading: Product name was modified.
Section 3: Composition/ Information of ingredients table was modified.
Section 2: Indication of danger information was modified.
Aspiration Hazard Table was modified.
Section 11: Acute Toxicity table was modified.
Carcinogenicity Table was modified.
Serious Eye Damage/Irritation Table was modified.
Germ Cell Mutagenicity Table was modified.
Skin Sensitisation Table was modified.
Respiratory Sensitisation Table was modified.
Reproductive Toxicity Table was modified.
Skin Corrosion/Irritation Table was modified.
Target Organs - Repeated Table was modified.
Target Organs - Single Table was modified.
Section 5: Fire - Extinguishing media information was modified.
Section 6: Accidental release clean-up information was modified.
Section 13: Standard Phrase Category Waste GHS was modified.
Section 8: Respiratory protection - recommended respirators guide was added.
Label: CLP Supplemental Hazard Statements was added.
Label: CLP Supplemental Hazard Statements - Header was added.
Label: CLP Supplemental Information - Header was added.
Section 8: 8.1. Derived no effect level (DNEL) table heading was added.
Section 8: 8.1. Predicted no effect concentrations (PNEC) table heading was added.
Section 8: 8.1. Derived no effect level (DNEL) table ingredient column heading was added.
Section 8: 8.1. Derived no effect level (DNEL) table population column heading was added.
Section 8: 8.1. Derived no effect level (DNEL) table human exposure pattern column heading was added.
Section 8: 8.1. Derived no effect level (DNEL) table DNEL column heading was added.
Section 8: DNEL table row was added.
Section 8: 8.1. Predicted no effect concentrations (PNEC) table ingredient column heading was added.
Section 8: 8.1. Predicted no effect concentrations (PNEC) table compartment column heading was added.
Section 8: 8.1. Predicted no effect concentrations (PNEC) table PNEC column heading was added.
Section 8: PNEC table row was added.
Section 8: 8.1. Derived no effect level (DNEL) table Degradation Product column heading was added.
Section 8: 8.1. Predicted no effect concentrations (PNEC) table Degradation Product column heading was added.
Section 2: R phrase reference was added.
Section 11: UN GHS Classification table heading 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.

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