



## Safety Data Sheet

Copyright,2019, 3M Company All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

<b>Document group:</b>	11-3195-2	<b>Version number:</b>	13.02
<b>Revision date:</b>	28/11/2019	<b>Supersedes date:</b>	30/10/2018
<b>Transportation version number:</b>	6.00 (05/06/2017)		

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 Urethane Adhesive EC-3549 B/A

#### Product Identification Numbers

62-3549-6440-5      87-2500-0412-1

7000000867      7000058944

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

##### Identified uses

Two-Component Polyurethane Adhesive

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

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

#### 1.4. Emergency telephone number

+44 (0)1344 858 000

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

10-8546-3, 10-8304-7

### TRANSPORTATION INFORMATION

62-3549-6440-5, 87-2500-0412-1

Not hazardous for transportation

## KIT LABEL

### 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

Respiratory Sensitization, Category 1 - Resp. Sens. 1; H334

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

Carcinogenicity, Category 2 - Carc. 2; H351

Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335

Specific Target Organ Toxicity-Repeated Exposure, Category 2 - STOT RE 2; H373

For full text of H phrases, see Section 16.

### 2.2. Label elements

#### CLP REGULATION (EC) No 1272/2008

##### SIGNAL WORD

DANGER.

##### Symbols:

GHS07 (Exclamation mark) | GHS08 (Health Hazard) |

##### Pictograms



##### Contains:

4,4'-methylenediphenyl diisocyanate; methylenediphenyl diisocyanate; Polymethylene polyphenylene isocyanate

##### HAZARD STATEMENTS:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure: respiratory system

##### PRECAUTIONARY STATEMENTS

##### Prevention:

P260A	Do not breathe vapours.
P280E	Wear protective gloves.

##### Response:

P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.

<b>3M Scotch-Weld Urethane Adhesive EC-3549 B/A</b>
---

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.

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

**<=125 ml Hazard statements**

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.  
H351 Suspected of causing cancer.

**<=125 ml Precautionary statements**

**Prevention:**

P261A Avoid breathing vapours.  
P280E Wear protective gloves.

**Response:**

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.  
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

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

**Revision information:**

Label: CLP Ingredients - kit components information was modified.  
Section 2: <125ml Hazard - Health information was modified.  
Section 2: <125ml Precautionary - Prevention information was modified.



## Safety Data Sheet

Copyright,2019, 3M Company All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

<b>Document group:</b>	10-8304-7	<b>Version number:</b>	10.02
<b>Revision date:</b>	26/11/2019	<b>Supersedes date:</b>	30/10/2018
<b>Transportation version number:</b>	1.00 (02/03/2011)		

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 Urethane Adhesive EC-3549 B/A Part B

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

##### Identified uses

Automotive.

#### 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:

This material is not classified as hazardous according to Regulation (EC) No. 1272/2008, as amended, on classification, labelling, and packaging of substances and mixtures.

#### 2.2. Label elements

CLP REGULATION (EC) No 1272/2008

Not applicable

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

No hazard statements are required for containers <=125 mL.

**SUPPLEMENTAL INFORMATION:**

**3M Scotch-Weld Urethane Adhesive EC-3549 B/A Part B****Supplemental Hazard Statements:**

EUH210

Safety data sheet available on request.

**2.3. Other hazards**

None known.

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

Ingredient	CAS Nbr	EC No.	REACH Registration No.	% by Wt	Classification
Polyester resin	Trade Secret			30 - 60	Substance not classified as hazardous
Propane-1,2-diol, propoxylated	25322-69-4	500-039-8		10 - 30	Substance not classified as hazardous
Talc	14807-96-6	238-877-9		10 - 30	Substance with a Community level exposure limit in the workplace
Propylidynetrimethanol, propoxylated	25723-16-4	500-041-9		3 - 7	Substance not classified as hazardous
Silicon dioxide	7631-86-9	231-545-4		0 - 5	Substance with a Community level exposure limit in the workplace
4,4'-methylenebis[2,6-diethylaniline]	13680-35-8	237-185-4		< 1.2	Aquatic Chronic 2, H411 Acute Tox. 4, H302
2-(3,4-Epoxy-cyclohexyl)ethyltrimethoxysilane	3388-04-3	222-217-1		< 1	Aquatic Chronic 3, H412
Disodium oxide	1313-59-3	215-208-9		< 0.5	EUH014; Acute Tox. 3, H301; Skin Corr. 1B, H314; STOT SE 3, H335

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

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

**SECTION 4: First aid measures****4.1. Description of first aid measures****Inhalation**

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

**Skin contact**

Wash with soap and water. If signs/symptoms develop, get medical attention.

**Eye contact**

No need for first aid is anticipated.

**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 carbon dioxide or dry chemical extinguisher to extinguish.

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

None inherent in this product.

### Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Carbon monoxide	During combustion.
Carbon dioxide.	During combustion.
Irritant vapours or gases.	During combustion.

### 5.3. Advice for fire-fighters

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

## SECTION 6: Accidental release measures

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

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Observe precautions from other sections.

### 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

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

For industrial/occupational use only. Not for consumer sale or use. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.)

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

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
DUST, INERT OR NUISANCE	14807-96-6	UK HSC	TWA(as inhalable dust):10 mg/m <sup>3</sup>	
Talc	14807-96-6	UK HSC	TWA(as respirable dust):1 mg/m <sup>3</sup>	
Silicon dioxide	7631-86-9	UK HSC	TWA(as inhalable dust):6 mg/m <sup>3</sup> ;TWA(as respirable dust):2.4 mg/m <sup>3</sup>	

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.

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

### 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

None required.

##### Skin/hand protection

No chemical protective gloves are required.

#### Respiratory protection

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

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

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

*Applicable Norms/Standards*

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

## SECTION 9: Physical and chemical properties

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

<b>Appearance</b>	
<b>Physical state</b>	Liquid.
<b>Colour</b>	Off-White
<b>Specific Physical Form:</b>	Paste
<b>Odor</b>	Slight Odor, Mild Odor
<b>Odour threshold</b>	<i>No data available.</i>
<b>pH</b>	<i>Not applicable.</i>
<b>Boiling point/boiling range</b>	$\geq 178.9$ °C
<b>Melting point</b>	<i>Not applicable.</i>
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Explosive properties</b>	Not classified
<b>Oxidising properties</b>	Not classified
<b>Flash point</b>	$\geq 178.9$ °C [ <i>Test Method: Closed Cup</i> ]
<b>Autoignition temperature</b>	<i>No data available.</i>
<b>Flammable Limits(LEL)</b>	<i>No data available.</i>
<b>Flammable Limits(UEL)</b>	<i>No data available.</i>
<b>Vapour pressure</b>	<i>No data available.</i>
<b>Relative density</b>	1.31 [ <i>Ref Std: WATER=1</i> ]
<b>Water solubility</b>	Negligible
<b>Solubility- non-water</b>	<i>No data available.</i>
<b>Partition coefficient: n-octanol/water</b>	<i>No data available.</i>
<b>Evaporation rate</b>	<i>Not applicable.</i>
<b>Vapour density</b>	<i>Not applicable.</i>
<b>Decomposition temperature</b>	<i>No data available.</i>
<b>Viscosity</b>	10,000 - 40,000 mPa-s [ <i>@ 23 °C</i> ]
<b>Density</b>	1.31 g/ml

### 9.2. Other information

<b>EU Volatile Organic Compounds</b>	<i>No data available.</i>
<b>Molecular weight</b>	<i>No data available.</i>

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

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

### 10.2 Chemical stability

Stable.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

### 10.4 Conditions to avoid

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

### 10.5 Incompatible materials



## 3M Scotch-Weld Urethane Adhesive EC-3549 B/A Part B

Strong oxidising agents.

### 10.6 Hazardous decomposition products

#### Substance

None known.

#### Condition

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

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

### 11.1 Information on Toxicological effects

#### Signs and Symptoms of Exposure

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

#### Inhalation

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

#### Skin contact

Contact with the skin during product use is not expected to result in significant irritation.

#### Eye contact

Contact with the eyes during product use is not expected to result in significant irritation.

#### Ingestion

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

#### Toxicological Data

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

#### Acute Toxicity

Name	Route	Species	Value
Overall product	Dermal		No data available; calculated ATE >5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Polyester resin	Ingestion	Rat	LD50 > 15,000 mg/kg
Propane-1,2-diol, propoxylated	Dermal	Rabbit	LD50 > 10,000 mg/kg
Propane-1,2-diol, propoxylated	Ingestion	Rat	LD50 > 2,000 mg/kg
Talc	Dermal		LD50 estimated to be > 5,000 mg/kg
Talc	Ingestion		LD50 estimated to be > 5,000 mg/kg
Propylidynetrimethanol, propoxylated	Dermal	Rat	LD50 > 2,000 mg/kg
Propylidynetrimethanol, propoxylated	Ingestion	Rat	LD50 > 2,500 mg/kg
Silicon dioxide	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silicon dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Silicon dioxide	Ingestion	Rat	LD50 > 5,110 mg/kg
4,4'-methylenebis[2,6-diethylaniline]	Ingestion	Rat	LD50 1,901 mg/kg
2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane	Dermal	Rabbit	LD50 6,700 mg/kg
2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane	Inhalation-	Rat	LC50 > 7 mg/l

**3M Scotch-Weld Urethane Adhesive EC-3549 B/A Part B**

	Vapour (4 hours)		
2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane	Ingestion	Rat	LD50 13,100 mg/kg
Disodium oxide	Ingestion	Professional judgement	LD50 estimated to be 50 - 300 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Propane-1,2-diol, propoxylated	Rabbit	No significant irritation
Talc	Rabbit	No significant irritation
Propylidynetrimethanol, propoxylated	Rabbit	No significant irritation
Silicon dioxide	Rabbit	No significant irritation
4,4'-methylenebis[2,6-diethylaniline]	Rabbit	Minimal irritation
2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane	Rabbit	Minimal irritation
Disodium oxide	similar compounds	Corrosive

**Serious Eye Damage/Irritation**

Name	Species	Value
Propane-1,2-diol, propoxylated	Rabbit	No significant irritation
Talc	Rabbit	No significant irritation
Propylidynetrimethanol, propoxylated	Rabbit	Mild irritant
Silicon dioxide	Rabbit	No significant irritation
4,4'-methylenebis[2,6-diethylaniline]	Rabbit	No significant irritation
2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane	Rabbit	No significant irritation
Disodium oxide	similar compounds	Corrosive

**Skin Sensitisation**

Name	Species	Value
Silicon dioxide	Human and animal	Not classified

**Respiratory Sensitisation**

Name	Species	Value
Talc	Human	Not classified

**Germ Cell Mutagenicity**

Name	Route	Value
Talc	In Vitro	Not mutagenic
Talc	In vivo	Not mutagenic
Silicon dioxide	In Vitro	Not mutagenic
4,4'-methylenebis[2,6-diethylaniline]	In Vitro	Not mutagenic
2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane	In Vitro	Some positive data exist, but the data are not sufficient for classification

**Carcinogenicity**

Name	Route	Species	Value
Talc	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Silicon dioxide	Not	Mouse	Some positive data exist, but the data are not

**3M Scotch-Weld Urethane Adhesive EC-3549 B/A Part B**

	specified.		sufficient for classification
2-(3,4-Epoxy cyclohexyl)ethyltrimethoxysilane	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification

**Reproductive Toxicity****Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration
Talc	Ingestion	Not classified for development	Rat	NOAEL 1,600 mg/kg	during organogenesis
Silicon dioxide	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silicon dioxide	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silicon dioxide	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

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

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Disodium oxide	Inhalation	respiratory irritation	May cause respiratory irritation	Professional judgement	NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Talc	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Talc	Inhalation	pulmonary fibrosis   respiratory system	Not classified	Rat	NOAEL 18 mg/m <sup>3</sup>	113 weeks
Silicon dioxide	Inhalation	respiratory system   silicosis	Not classified	Human	NOAEL Not available	occupational exposure

**Aspiration Hazard**

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

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

**SECTION 12: Ecological information**

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

**12.1. Toxicity**

No product test data available.

Material	CAS #	Organism	Type	Exposure	Test endpoint	Test result
Polyester resin	Trade Secret		Data not available or insufficient for classification			

**3M Scotch-Weld Urethane Adhesive EC-3549 B/A Part B**

Propane-1,2-diol, propoxylated	25322-69-4	Green algae	Experimental	72 hours	EC50	>100 mg/l
Propane-1,2-diol, propoxylated	25322-69-4	Water flea	Experimental	48 hours	EC50	105.8 mg/l
Propane-1,2-diol, propoxylated	25322-69-4	Zebra Fish	Experimental	96 hours	LC50	>100 mg/l
Propane-1,2-diol, propoxylated	25322-69-4	Green algae	Experimental	72 hours	NOEC	>100 mg/l
Propane-1,2-diol, propoxylated	25322-69-4	Water flea	Experimental	21 days	NOEC	>=10 mg/l
Talc	14807-96-6		Data not available or insufficient for classification			
Propylidynetrimethanol, propoxylated	25723-16-4	Green algae	Experimental	72 hours	EC50	>100 mg/l
Propylidynetrimethanol, propoxylated	25723-16-4	Water flea	Experimental	48 hours	EC50	>100 mg/l
Propylidynetrimethanol, propoxylated	25723-16-4	Zebra Fish	Experimental	96 hours	LC50	>100 mg/l
Propylidynetrimethanol, propoxylated	25723-16-4	Green algae	Experimental	72 hours	NOEC	100 mg/l
Propylidynetrimethanol, propoxylated	25723-16-4	Water flea	Experimental	21 days	NOEC	8.5 mg/l
Silicon dioxide	7631-86-9		Data not available or insufficient for classification			
4,4'-methylenebis[2,6-diethylaniline]	13680-35-8	Green Algae	Endpoint not reached	72 hours	EC50	>100 mg/l
4,4'-methylenebis[2,6-diethylaniline]	13680-35-8	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
4,4'-methylenebis[2,6-diethylaniline]	13680-35-8	Zebra Fish	Experimental	96 hours	LC50	1.32 mg/l
4,4'-methylenebis[2,6-diethylaniline]	13680-35-8	Green Algae	Experimental	72 hours	NOEC	0.19 mg/l
2-(3,4-Epoxy cyclohexyl)ethyl trimethoxysilane	3388-04-3	Green algae	Estimated	72 hours	EC50	280 mg/l
2-(3,4-Epoxy cyclohexyl)ethyl trimethoxysilane	3388-04-3	Rainbow trout	Estimated	96 hours	LC50	180 mg/l
2-(3,4-Epoxy cyclohexyl)ethyl trimethoxysilane	3388-04-3	Water flea	Estimated	48 hours	EC50	20 mg/l
2-(3,4-Epoxy cyclohexyl)ethyl trimethoxysilane	3388-04-3	Green algae	Estimated	72 hours	NOEC	1 mg/l
Disodium oxide	1313-59-3		Data not available or insufficient for classification			

**12.2. Persistence and degradability**

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Polyester resin	Trade Secret	Data not availbl-insufficient			N/A	
Propane-1,2-diol, propoxylated	25322-69-4	Experimental Biodegradation	28 days	BOD	89 % weight	OECD 301F - Manometric respirometry
Talc	14807-96-6	Data not availbl-insufficient			N/A	
Propylidynetrimethanol, propoxylated	25723-16-4	Experimental Biodegradation	28 days	BOD	84 % BOD/ThBOD	Other methods
Silicon dioxide	7631-86-9	Data not availbl-insufficient			N/A	
4,4'-methylenebis[2,6-diethylaniline]	13680-35-8	Experimental Biodegradation	28 days	Readily Biodegradable	4.18 % BOD/ThBOD	OECD 301C - MITI test (I)
2-(3,4-	3388-04-3	Estimated		Hydrolytic half-life	6.5 hours (t	Other methods

**3M Scotch-Weld Urethane Adhesive EC-3549 B/A Part B**

Epoxy(cyclohexyl)ethyltrimethoxysilane		Hydrolysis			1/2)	
2-(3,4-Epoxy(cyclohexyl)ethyltrimethoxysilane	3388-04-3	Estimated Biodegradation	28 days	BOD	28 % BOD/ThBOD	OECD 301D - Closed bottle test
Disodium oxide	1313-59-3	Data not available or insufficient			N/A	

**12.3 : Bioaccumulative potential**

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Polyester resin	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Propane-1,2-diol, propoxylated	25322-69-4	Experimental Bioconcentration		Log Kow	<0.9	Other methods
Talc	14807-96-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Propylidynetrimethanol, propoxylated	25723-16-4	Experimental Bioconcentration		Log Kow	1.8	Other methods
Silicon dioxide	7631-86-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4,4'-methylenebis[2,6-diethylaniline]	13680-35-8	Estimated Bioconcentration		Bioaccumulation factor	2344	Estimated: Bioconcentration factor
2-(3,4-Epoxy(cyclohexyl)ethyltrimethoxysilane	3388-04-3	Estimated Bioconcentration		Bioaccumulation factor	2.3	Estimated: Bioconcentration factor
Disodium oxide	1313-59-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

**12.4. Mobility in soil**

Please contact manufacturer for more details

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

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

**12.6. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

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

This product has been classified as a non-hazardous waste. Prior to disposal, consult all applicable authorities and regulations to insure proper classification. Dispose of waste product in a permitted industrial waste facility. As a disposal alternative, incinerate in a permitted waste incineration facility. Proper destruction may require the use of additional fuel during incineration processes. Empty and clean product containers may be disposed as non-hazardous waste. Consult your specific regulations and service providers to determine available options and requirements.

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)**

## 3M Scotch-Weld Urethane Adhesive EC-3549 B/A Part B

08 04 10 Waste adhesives and sealants other than those mentioned in 08 04 09  
20 01 28 Paint, inks, adhesives and resins other than those mentioned in 20 01 27

## SECTION 14: Transportation information

ADR/IMDG/IATA: Not hazardous for transport

## SECTION 15: Regulatory information

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

#### Carcinogenicity

<u>Ingredient</u>	<u>CAS Nbr</u>	<u>Classification</u>	<u>Regulation</u>
Silicon dioxide	7631-86-9	Gr. 3: Not classifiable	International Agency for Research on Cancer

### 15.2. Chemical Safety Assessment

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

## SECTION 16: Other information

### List of relevant H statements

EUH014	Reacts violently with water.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

### Revision information:

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

Section 5: Hazardous combustion products table information was modified.

Section 09: Color information was added.

Section 09: Odor information was added.

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

Section 11: Acute Toxicity table information was modified.

Section 11: Reproductive and/or Developmental Effects text information was deleted.

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

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

Section 11: Specific Target Organ Toxicity - single exposure text information was deleted.

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

Section 12: Component ecotoxicity information information was modified.

Section 12: Persistence and Degradability information information was modified.

Section 12: Biocumulative potential information information was modified.

Section 15: Regulations - Inventories information was deleted.

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

Section 16: UK disclaimer 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. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into the European Union, you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.

**3M United Kingdom MSDSs are available at [www.3M.com/uk](http://www.3M.com/uk)**



## Safety Data Sheet

Copyright, 2019, 3M Company All rights reserved. Copying and/or downloading of this information for the purpose of properly utilising 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

<b>Document group:</b>	10-8546-3	<b>Version number:</b>	10.01
<b>Revision date:</b>	10/07/2019	<b>Supersedes date:</b>	07/05/2018
<b>Transportation version number:</b>	1.00 (02/03/2011)		

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 Urethane Adhesive EC-3549 B/A 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 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  
Respiratory Sensitization, Category 1 - Resp. Sens. 1; H334  
Skin Sensitization, Category 1 - Skin Sens. 1; H317  
Carcinogenicity, Category 2 - Carc. 2; H351  
Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335  
Specific Target Organ Toxicity-Repeated Exposure, Category 2 - STOT RE 2; H373

For full text of H phrases, see Section 16.

#### 2.2. Label elements

CLP REGULATION (EC) No 1272/2008



**SIGNAL WORD**

DANGER.

**Symbols:**

GHS07 (Exclamation mark) | GHS08 (Health Hazard) |

**Pictograms**



**Ingredients:**

Ingredient	CAS Nbr	EC No.	% by Wt
4,4'-methylenediphenyl diisocyanate	101-68-8	202-966-0	10 - 30
Polymethylene polyphenylene isocyanate	9016-87-9		10 - 30
Methylenediphenyl diisocyanate	26447-40-5	247-714-0	1 - 10

**HAZARD STATEMENTS:**

H319	Causes serious eye irritation.	
H315	Causes skin irritation.	
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
H317	May cause an allergic skin reaction.	
H335	May cause respiratory irritation.	
H351	Suspected of causing cancer.	
H373	May cause damage to organs through prolonged or repeated exposure:	respiratory system

**PRECAUTIONARY STATEMENTS**

**Prevention:**

P260A	Do not breathe vapours.
P280E	Wear protective gloves.

**Response:**

P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.
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.

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

**<=125 ml Hazard statements**

H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.

**<=125 ml Precautionary statements**

**Prevention:**

P261A	Avoid breathing vapours.
-------	--------------------------

**3M Scotch-Weld Urethane Adhesive EC-3549 B/A Part A**

P280E

Wear protective gloves.

**Response:**

P304 + P340

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P342 + P311

If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.

P333 + P313

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

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

**2.3. Other hazards**

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

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

Ingredient	CAS Nbr	EC No.	REACH Registration No.	% by Wt	Classification
Urethane prepolymer	Trade Secret			15 - 40	Substance not classified as hazardous
Polymethylene polyphenylene isocyanate	9016-87-9			10 - 30	Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Resp. Sens. 1, H334; Skin Sens. 1, H317; Carc. 2, H351; STOT SE 3, H335; STOT RE 2, H373
4,4'-methylenediphenyl diisocyanate	101-68-8	202-966-0	01-2119457014-47	10 - 30	Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Resp. Sens. 1, H334; Skin Sens. 1, H317; Carc. 2, H351; STOT SE 3, H335; STOT RE 2, H373 - Nota 2,C
Talc	14807-96-6	238-877-9		10 - 30	Substance with a Community level exposure limit in the workplace
Methylenediphenyl diisocyanate	26447-40-5	247-714-0		1 - 10	Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Resp. Sens. 1, H334; Skin Sens. 1, H317; Carc. 2, H351; STOT SE 3, H335; STOT RE 2, H373 - Nota 2,C
Zeolites, NAA	68989-22-0			1 - 5	Substance not classified as hazardous
Silicon dioxide	7631-86-9	231-545-4		0 - 1.3	Substance not classified as hazardous
Disodium oxide	1313-59-3	215-208-9		0 - 0.4	EUH014; Acute Tox. 3, H301; Skin Corr. 1B, H314; STOT SE 3, H335

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

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Inhalation

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

#### Skin contact

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

#### Eye contact

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

#### If swallowed

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

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

See Section 11.1 Information on toxicological effects

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

Not applicable

## SECTION 5: Fire-fighting measures

### 5.1. Extinguishing media

In case of fire: Use a carbon dioxide or dry chemical extinguisher to extinguish.

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

None inherent in this product.

### Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Isocyanates	During combustion.
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Hydrogen cyanide.	During combustion.
Oxides of nitrogen.	During combustion.

### 5.3. Advice for fire-fighters

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

## SECTION 6: Accidental release measures

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

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

### 6.2. Environmental precautions

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

### 3M Scotch-Weld Urethane Adhesive EC-3549 B/A Part A

bodies of water.

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

Contain spill. Pour isocyanate decontaminant solution (90% water, 8% concentrated ammonia, 2% detergent) on spill and allow to react for 10 minutes. Or pour water on spill and allow to react for more than 30 minutes. Cover with absorbent material. 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 container approved for transportation by appropriate authorities, but do not seal the container for 48 hours to avoid pressure build-up. 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. Dispose of collected material as soon as possible.

#### 6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

## SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

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

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

Store in a well-ventilated place. Keep container tightly closed to prevent contamination with water or air. If contamination is suspected, do not reseal container. Store away from acids. Store away from strong bases. Store away from oxidising agents. Store away from amines.

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

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

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

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
Free isocyanates	101-68-8	UK HSC	TWA(as NCO):0.02 mg/m <sup>3</sup> ;STEL(as NCO):0.07 mg/m <sup>3</sup>	Respiratory Sensitizer
Talc	14807-96-6	UK HSC	TWA(as respirable dust):1 mg/m <sup>3</sup>	
Free isocyanates	26447-40-5	UK HSC	TWA(as NCO):0.02 mg/m <sup>3</sup> ;STEL(as NCO):0.07 mg/m <sup>3</sup>	Respiratory Sensitizer
Free isocyanates	9016-87-9	UK HSC	TWA(as NCO):0.02 mg/m <sup>3</sup> ;STEL(as NCO):0.07 mg/m <sup>3</sup>	Respiratory Sensitizer

UK HSC : UK Health and Safety Commission

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

### Biological limit values

Ingredient	CAS Nbr	Agency	Determinant	Biological Specimen	Sampling Time	Value	Additional comments
Free isocyanates	101-68-8	UK EH40 BMGVs	Isocyanate-derived diamine	Creatinine in urine	EPE	1 umol/mol	
Free isocyanates	26447-40-5	UK EH40 BMGVs	Isocyanate-derived diamine	Creatinine in urine	EPE	1 umol/mol	
Free isocyanates	9016-87-9	UK EH40 BMGVs	Isocyanate-derived diamine	Creatinine in urine	EPE	1 umol/mol	

UK EH40 BMGVs : UK. EH40 Biological Monitoring Guidance Values (BMGVs)

EPE: At the end of the period of exposure.

### 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.

##### *Applicable Norms/Standards*

Use eye protection conforming to EN 166

##### Skin/hand protection

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

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

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

##### *Applicable Norms/Standards*

Use gloves tested to EN 374

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

##### Respiratory protection

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

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

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

*Applicable Norms/Standards*

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

## SECTION 9: Physical and chemical properties

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

Physical state	Liquid.
Specific Physical Form:	Paste
Appearance/Odour	Brown, slight odour.
Odour threshold	No data available.
pH	Not applicable.
Boiling point/boiling range	$\geq 186$ °C
Melting point	Not applicable.
Flammability (solid, gas)	Not applicable.
Explosive properties	Not classified
Oxidising properties	Not classified
Flash point	$\geq 186.1$ °C [Test Method: Closed Cup]
Autoignition temperature	Not applicable.
Flammable Limits(LEL)	Not applicable.
Flammable Limits(UEL)	Not applicable.
Relative density	1.34 [Ref Std: WATER=1]
Water solubility	Negligible
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.
Evaporation rate	Not applicable.
Vapour density	No data available.
Decomposition temperature	No data available.
Viscosity	15,000 - 32,000 mPa-s [@ 23 °C] [Test Method: Brookfield]
Density	1.34 g/ml

### 9.2. Other information

EU Volatile Organic Compounds	No data available.
Molecular weight	No data available.
Percent volatile	0 % weight

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

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

### 10.2 Chemical stability

Stable.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

### 10.4 Conditions to avoid

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

### 10.5 Incompatible materials

Amines.

Alcohols.

Water

Reaction with water, alcohols, and amines is not hazardous if container can vent to the atmosphere to prevent pressure buildup.

Strong acids.

Strong bases.

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

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. Allergic respiratory reaction: Signs/symptoms may include difficulty breathing, wheezing, cough, and tightness of chest. May cause additional health effects (see below).

#### Skin contact

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

#### Eye contact

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

#### Ingestion

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

#### Additional Health Effects:

#### Prolonged or repeated exposure may cause target organ effects:

Pneumoconiosis: Sign/symptoms may include persistent cough, breathlessness, chest pain, increased amounts of sputum, and changes in lung function tests. Respiratory effects: Signs/symptoms may include cough, shortness of breath, chest tightness, wheezing, increased heart rate, bluish coloured skin (cyanosis), sputum production, changes in lung function tests, and respiratory failure.

#### Additional information:

### 3M Scotch-Weld Urethane Adhesive EC-3549 B/A Part A

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

#### 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	Inhalation-Vapour(4 hr)		No data available; calculated ATE >50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000 mg/kg
Urethane prepolymer	Dermal		LD50 estimated to be > 5,000 mg/kg
Urethane prepolymer	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Talc	Dermal		LD50 estimated to be > 5,000 mg/kg
Talc	Ingestion		LD50 estimated to be > 5,000 mg/kg
Polymethylene polyphenylene isocyanate	Dermal	Rabbit	LD50 > 5,000 mg/kg
Polymethylene polyphenylene isocyanate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
Polymethylene polyphenylene isocyanate	Ingestion	Rat	LD50 31,600 mg/kg
4,4'-methylenediphenyl diisocyanate	Dermal	Rabbit	LD50 > 5,000 mg/kg
4,4'-methylenediphenyl diisocyanate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
4,4'-methylenediphenyl diisocyanate	Ingestion	Rat	LD50 31,600 mg/kg
Methylenediphenyl diisocyanate	Dermal	Rabbit	LD50 > 5,000 mg/kg
Methylenediphenyl diisocyanate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
Methylenediphenyl diisocyanate	Ingestion	Rat	LD50 31,600 mg/kg
Silicon dioxide	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silicon dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 0.691 mg/l
Silicon dioxide	Ingestion	Rat	LD50 > 5,110 mg/kg
Disodium oxide	Ingestion	Professional judgement	LD50 estimated to be 50 - 300 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
Talc	Rabbit	No significant irritation
Polymethylene polyphenylene isocyanate	official classification	Irritant
4,4'-methylenediphenyl diisocyanate	official classification	Irritant
Methylenediphenyl diisocyanate	official classification	Irritant
Silicon dioxide	Rabbit	No significant irritation
Disodium oxide	similar compounds	Corrosive

#### Serious Eye Damage/Irritation

Name	Species	Value



**3M Scotch-Weld Urethane Adhesive EC-3549 B/A Part A**

Talc	Rabbit	No significant irritation
Polymethylene polyphenylene isocyanate	official classification	Severe irritant
4,4'-methylenediphenyl diisocyanate	official classification	Severe irritant
Methylenediphenyl diisocyanate	official classification	Severe irritant
Silicon dioxide	Rabbit	No significant irritation
Disodium oxide	similar compounds	Corrosive

**Skin Sensitisation**

Name	Species	Value
Polymethylene polyphenylene isocyanate	official classification	Sensitising
4,4'-methylenediphenyl diisocyanate	official classification	Sensitising
Methylenediphenyl diisocyanate	official classification	Sensitising
Silicon dioxide	Human and animal	Not classified

**Respiratory Sensitisation**

Name	Species	Value
Talc	Human	Not classified
Polymethylene polyphenylene isocyanate	Human	Sensitising
4,4'-methylenediphenyl diisocyanate	Human	Sensitising
Methylenediphenyl diisocyanate	Human	Sensitising

**Germ Cell Mutagenicity**

Name	Route	Value
Talc	In Vitro	Not mutagenic
Talc	In vivo	Not mutagenic
Polymethylene polyphenylene isocyanate	In Vitro	Some positive data exist, but the data are not sufficient for classification
4,4'-methylenediphenyl diisocyanate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Methylenediphenyl diisocyanate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Silicon dioxide	In Vitro	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
Talc	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Polymethylene polyphenylene isocyanate	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
4,4'-methylenediphenyl diisocyanate	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Methylenediphenyl diisocyanate	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
Silicon dioxide	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification

**3M Scotch-Weld Urethane Adhesive EC-3549 B/A Part A**

**Reproductive Toxicity**

**Reproductive and/or Developmental Effects**

Name	Route	Value	Species	Test result	Exposure Duration
Talc	Ingestion	Not classified for development	Rat	NOAEL 1,600 mg/kg	during organogenesis
Polymethylene polyphenylene isocyanate	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis
4,4'-methylenediphenyl diisocyanate	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis
Methylenediphenyl diisocyanate	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis
Silicon dioxide	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silicon dioxide	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silicon dioxide	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

**Target Organ(s)**

**Specific Target Organ Toxicity - single exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Polymethylene polyphenylene isocyanate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
4,4'-methylenediphenyl diisocyanate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
Methylenediphenyl diisocyanate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
Disodium oxide	Inhalation	respiratory irritation	May cause respiratory irritation	Professional judgement	NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Talc	Inhalation	pneumoconiosis	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Talc	Inhalation	pulmonary fibrosis   respiratory system	Not classified	Rat	NOAEL 18 mg/m3	113 weeks
Polymethylene polyphenylene isocyanate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
4,4'-methylenediphenyl diisocyanate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
Methylenediphenyl diisocyanate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
Silicon dioxide	Inhalation	respiratory system   silicosis	Not classified	Human	NOAEL Not available	occupational exposure

**Aspiration Hazard**

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

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

**SECTION 12: Ecological information**

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

**12.1. Toxicity**

No product test data available.

Material	CAS #	Organism	Type	Exposure	Test endpoint	Test result
Urethane prepolymer	Trade Secret	Zebra Fish	Estimated	24 hours	LC50	>100 mg/l
Urethane prepolymer	Trade Secret	Water flea	Estimated	24 hours	EC50	>100 mg/l
4,4'-methylenediphenyl diisocyanate	101-68-8	Green algae	Estimated	72 hours	EC50	>1,640 mg/l
4,4'-methylenediphenyl diisocyanate	101-68-8	Zebra Fish	Estimated	96 hours	LC50	>1,000 mg/l
4,4'-methylenediphenyl diisocyanate	101-68-8	Water flea	Estimated	24 hours	EC50	>1,000 mg/l
4,4'-methylenediphenyl diisocyanate	101-68-8	Water flea	Estimated	21 days	NOEC	10 mg/l
4,4'-methylenediphenyl diisocyanate	101-68-8	Green algae	Estimated	72 hours	NOEC	1,640 mg/l
Polymethylene polyphenylene isocyanate	9016-87-9	Water flea	Estimated	24 hours	EC50	>100 mg/l
Talc	14807-96-6		Data not available or insufficient for classification			
Methylenediphenyl diisocyanate	26447-40-5	Water flea	Estimated		EC50	>100 mg/l
Zeolites, NAA	68989-22-0	Zebra Fish	Estimated	96 hours	LC50	>100 mg/l
Zeolites, NAA	68989-22-0	Green algae	Estimated	96 hours	EC50	>100 mg/l
Zeolites, NAA	68989-22-0	Green algae	Estimated	72 hours	NOEC	>100 mg/l
Zeolites, NAA	68989-22-0	Water flea	Estimated	21 days	NOEC	>100 mg/l
Silicon dioxide	7631-86-9		Data not available or insufficient for classification			
Disodium oxide	1313-59-3		Data not available or insufficient for classification			

**12.2. Persistence and degradability**

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Urethane prepolymer	Trade Secret	Data not available or insufficient			N/A	
4,4'-methylenediphenyl diisocyanate	101-68-8	Estimated Hydrolysis		Hydrolytic half-life	20 hours (t 1/2)	Other methods
Polymethylene polyphenylene isocyanate	9016-87-9	Experimental Hydrolysis		Hydrolytic half-life	<2 hours (t 1/2)	Other methods
Polymethylene polyphenylene isocyanate	9016-87-9	Estimated Biodegradation	28 days	BOD	0 % weight	OECD 301C - MITI test (I)
Talc	14807-96-6	Data not available or insufficient			N/A	
Methylenediphenyl	26447-40-5	Estimated		Hydrolytic half-life	<2 hours (t 1/2)	Other methods

**3M Scotch-Weld Urethane Adhesive EC-3549 B/A Part A**

diisocyanate		Hydrolysis				
Methylenediphenyl diisocyanate	26447-40-5	Estimated Biodegradation	28 days	BOD	0 % weight	OECD 301C - MITI test (I)
Zeolites, NAA	68989-22-0	Data not available or insufficient			N/A	
Silicon dioxide	7631-86-9	Data not available or insufficient			N/A	
Disodium oxide	1313-59-3	Data not available or insufficient			N/A	

**12.3 : Bioaccumulative potential**

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Urethane prepolymer	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4,4'-methylenediphenyl diisocyanate	101-68-8	Experimental BCF-Carp	28 days	Bioaccumulation factor	200	OECD 305E - Bioaccumulation flow-through fish test
Polymethylene polyphenylene isocyanate	9016-87-9	Estimated BCF-Carp	28 days	Bioaccumulation factor	200	Other methods
Talc	14807-96-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Methylenediphenyl diisocyanate	26447-40-5	Estimated BCF-Carp	28 days	Bioaccumulation factor	200	Other methods
Zeolites, NAA	68989-22-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Silicon dioxide	7631-86-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Disodium oxide	1313-59-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

**12.4. Mobility in soil**

Please contact manufacturer for more details

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

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

**12.6. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

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

Dispose of completely cured (or polymerized) 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. 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

### 3M Scotch-Weld Urethane Adhesive EC-3549 B/A Part A

and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

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

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

## SECTION 14: Transportation information

ADR/IATA/IMDG: Not restricted for transport.

## SECTION 15: Regulatory information

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

#### Carcinogenicity

<u>Ingredient</u>	<u>CAS Nbr</u>	<u>Classification</u>	<u>Regulation</u>
Methylenediphenyl diisocyanate	26447-40-5	Carc. 2	Regulation (EC) No. 1272/2008, Table 3.1
Methylenediphenyl diisocyanate	26447-40-5	Gr. 3: Not classifiable	International Agency for Research on Cancer
4,4'-methylenediphenyl diisocyanate	101-68-8	Carc. 2	Regulation (EC) No. 1272/2008, Table 3.1
4,4'-methylenediphenyl diisocyanate	101-68-8	Gr. 3: Not classifiable	International Agency for Research on Cancer
Polymethylene polyphenylene isocyanate	9016-87-9	Carc. 2	3M classified according to Regulation (EC) No 1272/2008
Polymethylene polyphenylene isocyanate	9016-87-9	Gr. 3: Not classifiable	International Agency for Research on Cancer
Silicon dioxide	7631-86-9	Gr. 3: Not classifiable	International Agency for Research on Cancer

#### Restrictions on the manufacture, placing on the market and use:

The following substance(s) contained in this product is/are subject through Annex XVII of REACH regulation to restrictions on the manufacture, placing on the market and use when present in certain dangerous substances, mixtures and articles. Users of this product are required to comply with the restrictions placed upon it by the aforementioned provision.

<u>Ingredient</u>	<u>CAS Nbr</u>
Methylenediphenyl diisocyanate	26447-40-5
Diphenylmethane Diisocyanate (MDI)	26447-40-5
4,4'-methylenediphenyl diisocyanate	101-68-8

Restriction status: listed in REACH Annex XVII

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

### 15.2. Chemical Safety Assessment

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

## SECTION 16: Other information

**List of relevant H statements**

EUH014	Reacts violently with water.
H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

**Revision information:**

Section 2: <125ml Precautionary - Prevention information was modified.  
Section 3: Composition/ Information of ingredients table information was modified.  
Section 7: Precautions safe handling information information was modified.  
BLV Reg Agency Desc information was added.  
Section 8: BLV table information was added.  
Section 8: BLV information was deleted.  
Legend description information was added.  
Section 11: Acute Toxicity table information was modified.  
Section 11: Reproductive and/or Developmental Effects text information was deleted.  
Section 11: Serious Eye Damage/Irritation Table information was modified.  
Section 11: Skin Corrosion/Irritation Table information was modified.  
Section 11: Target Organs - Single Table information was modified.  
Section 12: Component ecotoxicity information information was modified.  
Section 13: 13.1. Waste disposal note information was modified.  
Section 15: Chemical Safety Assessment information was added.  
Section 15: Regulations - Inventories information was deleted.  
Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was modified.

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](http://www.3M.com/uk)**