



## Safety Data Sheet

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<b>Transportation version number:</b>	1.00 (07/02/2011)		

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

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

#### 1.1. Product identifier

3M Scotch-Weld DP-610 Crystal Clear Adhesive Kit

#### Product Identification Numbers

FS-9100-4041-9      UU-0101-3337-7

7000080084      7100200503

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

##### Identified uses

Structural adhesive.

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

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

#### 1.4. Emergency telephone number

+44 (0)1344 858 000

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

09-3074-3, 09-3093-3

### TRANSPORTATION INFORMATION

FS-9100-4041-9, UU-0101-3337-7

Not hazardous for transportation

## KIT LABEL

### 2.1. Classification of the substance or mixture

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

##### CLASSIFICATION:

Acute Toxicity, Category 4 - Acute Tox. 4; H332

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

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

Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

### 2.2. Label elements

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

##### SIGNAL WORD

WARNING.

##### Symbols:

GHS07 (Exclamation mark) |

##### Pictograms



##### Contains:

Hexamethylene Diisocyanate; Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate; HDI oligomers, isocyanurate

##### HAZARD STATEMENTS:

H332	Harmful if inhaled.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

##### PRECAUTIONARY STATEMENTS

##### Prevention:

P261A	Avoid breathing vapours.
P280E	Wear protective gloves.

##### Response:

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

P501	Dispose of contents/container in accordance with applicable local/regional/national/international regulations.
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For containers not exceeding 125 ml the following Hazard and Precautionary statements may be used:

**3M Scotch-Weld DP-610 Crystal Clear Adhesive Kit**

**<=125 ml Hazard statements**

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

**<=125 ml Precautionary statements**

**Prevention:**

P280E Wear protective gloves.

**Response:**

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:**

Section 1: Product identification numbers information was modified.

Section 01: SAP Material Numbers information was modified.



## Safety Data Sheet

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<b>Revision date:</b>	13/08/2019	<b>Supersedes date:</b>	21/11/2018
<b>Transportation version number:</b>	1.00 (07/02/2011)		

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 Structural Adhesive DP-610 (Part B)

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

##### Identified uses

Structural adhesive.

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

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

#### 1.4. Emergency telephone number

+44 (0)1344 858 000

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

##### CLASSIFICATION:

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

Hazardous to the Aquatic Environment (Chronic), Category 3 - Aquatic Chronic 3; H412

For full text of H phrases, see Section 16.

#### 2.2. Label elements

CLP REGULATION (EC) No 1272/2008

##### SIGNAL WORD

WARNING.

##### Symbols:

GHS07 (Exclamation mark) |

**Pictograms**



**Ingredients:**

Ingredient	CAS Nbr	EC No.	% by Wt
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate		915-687-0	1 - 5

**HAZARD STATEMENTS:**

H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS**

**Prevention:**

P280E Wear protective gloves.

**Response:**

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

**Disposal:**

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

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

**<=125 ml Hazard statements**

H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

**<=125 ml Precautionary statements**

**Prevention:**

P280E Wear protective gloves.

**Response:**

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

58% of the mixture consists of components of unknown acute inhalation toxicity.  
Contains 58% of components with unknown hazards to the aquatic environment.

**2.3. Other hazards**

None known.

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

Ingredient	CAS Nbr	EC No.	REACH Registration No.	% by Wt	Classification
Polyester	Trade Secret			40 - 70	Substance not classified as hazardous
ε-Caprolactone, oligomeric reaction products with propylidynetrimethanol	37625-56-2	500-099-5	01-2119486824-25	15 - 40	Substance not classified as hazardous
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate		915-687-0	01-2119491304-40	1 - 5	Aquatic Acute 1, H400,M=1; Aquatic Chronic 1, H410,M=1 Skin Sens. 1A, H317
Trimethoxyvinylsilane	2768-02-7	220-449-8		1 - 5	Flam. Liq. 3, H226; Acute Tox. 4, H332
Trimethylolpropane	77-99-6	201-074-9		0 - 3	Substance not classified as hazardous

Note: Any entry in the EC# column that begins with the numbers 6, 7, 8, or 9 are a Provisional List Number provided by ECHA pending publication of the official EC Inventory Number for the substance.

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

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

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

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

**Skin contact**

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

**Eye contact**

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

**If swallowed**

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

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

See Section 11.1 Information on toxicological effects

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

Not applicable

**SECTION 5: Fire-fighting measures****5.1. Extinguishing media**

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

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

## 3M Scotch-Weld™ Urethane Structural Adhesive DP-610 (Part B)

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.

### 5.3. Advice for fire-fighters

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

## SECTION 6: Accidental release measures

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

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

### 6.2. Environmental precautions

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

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

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

### 6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid breathing 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.

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

Keep container tightly closed.

### 7.3. Specific end use(s)

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

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

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

**3M Scotch-Weld™ Urethane Structural Adhesive DP-610 (Part B)**

**Biological limit values**

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

**Derived no effect level (DNEL)**

Ingredient	Degradation Product	Population	Human exposure pattern	DNEL
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate		Worker	Dermal, Long-term exposure (8 hours), Systemic effects	2.5 mg/kg bw/d
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate		Worker	Dermal, Short-term exposure, Systemic effects	2.5 mg/kg bw/d
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate		Worker	Inhalation, Long-term exposure (8 hours), Systemic effects	2.35 mg/m <sup>3</sup>
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate		Worker	Inhalation, Short-term exposure, Systemic effects	2.35 mg/m <sup>3</sup>

**Predicted no effect concentrations (PNEC)**

Ingredient	Degradation Product	Compartment	PNEC
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate		Agricultural soil	0.21 mg/kg d.w.
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate		Freshwater	0.0022 mg/l
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate		Freshwater sediments	1.05 mg/kg d.w.
Reaction mass of		Intermittent releases to water	0.009 mg/l



**3M Scotch-Weld™ Urethane Structural Adhesive DP-610 (Part B)**

Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate			
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate		Marine water	0.00022 mg/l
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate		Marine water sediments	0.11 mg/kg d.w.
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate		Sewage Treatment Plant	1 mg/l

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

## 8.2. Exposure controls

In addition, refer to the annex for more information.

### 8.2.1. Engineering controls

Provide appropriate local exhaust ventilation for cutting, grinding, sanding or machining.

### 8.2.2. Personal protective equipment (PPE)

#### Eye/face protection

Eye protection not required.

#### 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

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

### 8.2.3. Environmental exposure controls

Refer to Annex

## SECTION 9: Physical and chemical properties

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

#### Appearance

Physical state

Liquid.

Colour

Transparent Colorless

Specific Physical Form:

Liquid.

Odor

Light Polyester

Odour threshold

*No data available.*

pH

*Not applicable.*

Boiling point/boiling range

*No data available.*

Melting point

*Not applicable.*

Flammability (solid, gas)

Not applicable.

Explosive properties

Not classified

Oxidising properties

Not classified

Flash point

$\geq 100$  °C

Autoignition temperature

*No data available.*

Flammable Limits(LEL)

*No data available.*

Flammable Limits(UEL)

*No data available.*

Vapour pressure

*No data available.*

Relative density

1.1 - 1.17 [Ref Std:WATER=1]

Water solubility

*No data available.*

Solubility- non-water

*No data available.*

Partition coefficient: n-octanol/water

*No data available.*

Evaporation rate

*No data available.*

Vapour density

*No data available.*

Decomposition temperature

*No data available.*

Viscosity

25 - 40 mPa-s [@ 23 °C] [Test Method:Brookfield]

Density

*No data available.*

### 9.2. Other information

EU Volatile Organic Compounds

*No data available.*

Molecular weight

*No data available.*

Percent volatile

$\leq 1$  %

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

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

### 10.2 Chemical stability

Stable.

### 10.3 Possibility of hazardous reactions

## 3M Scotch-Weld™ Urethane Structural Adhesive DP-610 (Part B)

Hazardous polymerisation will not occur.

### 10.4 Conditions to avoid

None known.

### 10.5 Incompatible materials

None known.

### 10.6 Hazardous decomposition products

#### Substance

#### Condition

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

## SECTION 11: Toxicological information

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

### 11.1 Information on Toxicological effects

#### Signs and Symptoms of Exposure

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

#### Inhalation

No known health effects.

#### Skin contact

May be harmful in contact with skin. Contact with the skin during product use is not expected to result in significant irritation. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

#### 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 2,000 - 5,000 mg/kg
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
ε-Caprolactone, oligomeric reaction products with propylidynetrimethanol	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
ε-Caprolactone, oligomeric reaction products with	Ingestion		LD50 > 2,000 mg/kg

**3M Scotch-Weld™ Urethane Structural Adhesive DP-610 (Part B)**

propylidynetrimethanol			
Trimethylolpropane	Dermal	Rabbit	LD50 > 10,000 mg/kg
Trimethylolpropane	Ingestion	Rat	LD50 > 5,000 mg/kg
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Dermal		LD50 estimated to be 2,000 - 5,000 mg/kg
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Ingestion	Rat	LD50 3,125 mg/kg
Trimethoxyvinylsilane	Dermal	Rabbit	LD50 3,260 mg/kg
Trimethoxyvinylsilane	Inhalation-Vapour (4 hours)	Rat	LC50 16.8 mg/l
Trimethoxyvinylsilane	Ingestion	Rat	LD50 7,120 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Trimethylolpropane	Rabbit	No significant irritation
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Rabbit	No significant irritation
Trimethoxyvinylsilane	Rabbit	Minimal irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
Trimethylolpropane	Rabbit	No significant irritation
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Rabbit	No significant irritation
Trimethoxyvinylsilane	Rabbit	No significant irritation

**Skin Sensitisation**

Name	Species	Value
Trimethylolpropane	Mouse	Not classified
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Guinea pig	Sensitising
Trimethoxyvinylsilane	Guinea pig	Not classified

**Respiratory Sensitisation**

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

**Germ Cell Mutagenicity**

Name	Route	Value
Trimethylolpropane	In Vitro	Not mutagenic
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	In Vitro	Not mutagenic
Trimethoxyvinylsilane	In vivo	Not mutagenic
Trimethoxyvinylsilane	In Vitro	Some positive data exist, but the data are not sufficient for classification

**Carcinogenicity**

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

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

Name	Route	Value	Species	Test result	Exposure Duration
Trimethylolpropane	Ingestion	Not classified for female reproduction	Rat	NOAEL 800 mg/kg/day	prematuring into lactation

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Trimethylolpropane	Ingestion	Not classified for male reproduction	Rat	NOAEL 800 mg/kg/day	45 days
Trimethylolpropane	Ingestion	Not classified for development	Rat	NOAEL 100 mg/kg/day	during gestation
Trimethoxyvinylsilane	Ingestion	Not classified for male reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
Trimethoxyvinylsilane	Ingestion	Not classified for development	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
Trimethoxyvinylsilane	Ingestion	Not classified for female reproduction	Rat	NOAEL 1,000 mg/kg/day	premating into lactation
Trimethoxyvinylsilane	Inhalation	Not classified for development	Rat	NOAEL 1.8 mg/l	during organogenesis

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

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

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Trimethylolpropane	Inhalation	heart   gastrointestinal tract   hematopoietic system   liver   immune system   kidney and/or bladder   respiratory system	Not classified	Rat	NOAEL 0.02 mg/l	15 days
Trimethylolpropane	Inhalation	endocrine system	Not classified		NOAEL 0.02 mg/l	15 days
Trimethylolpropane	Ingestion	hematopoietic system   liver   kidney and/or bladder   heart   skin   endocrine system   bone, teeth, nails, and/or hair   immune system   muscles   nervous system   respiratory system	Not classified	Rat	NOAEL 667 mg/kg/day	90 days
Trimethoxyvinylsilane	Inhalation	kidney and/or bladder	Not classified	Rat	NOAEL mg/l	14 weeks
Trimethoxyvinylsilane	Inhalation	hematopoietic system   eyes	Not classified	Rat	NOAEL 2.4 mg/l	14 weeks
Trimethoxyvinylsilane	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 250 mg/kg/day	40 days
Trimethoxyvinylsilane	Ingestion	endocrine system   hematopoietic system   liver   immune system	Not classified	Rat	NOAEL 1,000 mg/kg/day	40 days

**Aspiration Hazard**

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

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

**SECTION 12: Ecological information**

**3M Scotch-Weld™ Urethane Structural Adhesive DP-610 (Part B)**

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
ε-Caprolactone, oligomeric reaction products with propylidynetrimethanol	37625-56-2	Green algae	Experimental	72 hours	EC50	490 mg/l
ε-Caprolactone, oligomeric reaction products with propylidynetrimethanol	37625-56-2	Water flea	Experimental	48 hours	EC50	>900 mg/l
ε-Caprolactone, oligomeric reaction products with propylidynetrimethanol	37625-56-2	Zebra Fish	Experimental	96 hours	LC50	150 mg/l
ε-Caprolactone, oligomeric reaction products with propylidynetrimethanol	37625-56-2	Green Algae	Experimental	72 hours	Effect Concentration 10%	240 mg/l
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Green algae	Experimental	72 hours	EC50	1.68 mg/l
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Zebra Fish	Experimental	96 hours	LC50	0.9 mg/l
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Green algae	Experimental	72 hours	NOEC	0.22 mg/l
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Water flea	Experimental	21 days	NOEC	1 mg/l
Trimethoxyvinylsilane	2768-02-7	Green algae	Experimental	72 hours	EC50	>957 mg/l
Trimethoxyvinylsilane	2768-02-7	Rainbow trout	Experimental	96 hours	LC50	191 mg/l
Trimethoxyvinylsilane	2768-02-7	Water flea	Experimental	48 hours	EC50	169 mg/l
Trimethoxyvinylsilane	2768-02-7	Green algae	Experimental	72 hours	NOEC	957 mg/l
Trimethoxyvinylsilane	2768-02-7	Water flea	Experimental	21 days	NOEC	28 mg/l

### 3M Scotch-Weld™ Urethane Structural Adhesive DP-610 (Part B)

Trimethylolpropane	77-99-6	Crustacea other	Experimental	96 hours	LC50	5,250 mg/l
Trimethylolpropane	77-99-6	Green Algae	Experimental	72 hours	EC50	>1,000 mg/l
Trimethylolpropane	77-99-6	Ricefish	Experimental	96 hours	LC50	>1,000 mg/l
Trimethylolpropane	77-99-6	Sheepshead Minnow	Experimental	96 hours	LC50	14,400 mg/l
Trimethylolpropane	77-99-6	Water flea	Experimental	48 hours	EC50	13,000 mg/l
Trimethylolpropane	77-99-6	Water flea	Experimental	21 days	NOEC	>1,000 mg/l

### 12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
e-Caprolactone, oligomeric reaction products with propylidynetrimethanol	37625-56-2	Experimental Biodegradation	28 days	CO2 evolution	77 % weight	OECD 301B - Modified sturm or CO2
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Estimated Biodegradation	28 days	Dissolv. Organic Carbon Deplet	38 % weight	OECD 301E - Modified OECD Scre
Trimethoxyvinylsilane	2768-02-7	Experimental Biodegradation	28 days	BOD	51 % weight	OECD 301F - Manometric respirometry
Trimethylolpropane	77-99-6	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	6 % weight	Other methods

### 12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
e-Caprolactone, oligomeric reaction products with propylidynetrimethanol	37625-56-2	Experimental Bioconcentration		Log Kow	2.4	Other methods
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	915-687-0	Estimated BCF-Carp	56 days	Bioaccumulation factor	31.4	
Trimethoxyvinylsilane	2768-02-7	Estimated Bioconcentration		Log Kow	-2	Other methods
Trimethylolpropane	77-99-6	Experimental BCF-Carp	42 days	Bioaccumulation factor	16.2	OECD 305E - Bioaccumulation flow-through fish test

### 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.

## 3M Scotch-Weld™ Urethane Structural Adhesive DP-610 (Part B)

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

### EU waste code (product as sold)

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

## SECTION 14: Transportation information

ADR: Not restricted for transport.

IMDG: Not restricted for transport.

IATA: Not restricted for transport.

## SECTION 15: Regulatory information

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

### 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

H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

### Revision information:

CLP: Ingredient table information was modified.

Label: CLP Percent Unknown information was deleted.

Label: CLP Percent Unknown information was modified.

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

Section 09: Color information was added.

Section 09: Odor information was added.

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



**3M Scotch-Weld™ Urethane Structural Adhesive DP-610 (Part B)**

Section 11: Acute Toxicity table information was modified.  
 Section 11: Health Effects - Ingestion information information was modified.  
 Section 11: Health Effects - Skin information information was modified.  
 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 14: Transportation classification information was modified.  
 Section 15: Regulations - Inventories information was deleted.

**Annex**

<b>1. Title</b>	
<b>Substance identification</b>	Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate; EC No. 915-687-0;
<b>Exposure Scenario Name</b>	Industrial Use of Adhesives
<b>Lifecycle Stage</b>	Use at industrial sites
<b>Contributing activities</b>	PROC 13 -Treatment of articles by dipping and pouring ERC 05 -Use at industrial site leading to inclusion into/onto article
<b>Processes, tasks and activities covered</b>	Dispensing of product with applicator gun.
<b>2. Operational conditions and risk management measures</b>	
<b>Operating Conditions</b>	<b>Physical state:</b> Liquid. <b>General operating conditions:</b> Frequency of exposure at workplace [for one worker]: 8 hours/day; Indoor use;
<b>Risk management measures</b>	Under the operational conditions described above the following risk management measures apply: <b>General risk management measures:</b> <b>Human health:</b> Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training. Refer to Section 8 of the SDS for specific glove material.; <b>Environmental:</b> None needed;
<b>Waste management measures</b>	No use-specific waste management measures are required for this product. Refer to Section 13 of main SDS for disposal instructions:
<b>3. Prediction of exposure</b>	
<b>Prediction of exposure</b>	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

<b>1. Title</b>	
<b>Substance identification</b>	Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate; EC No. 915-687-0;
<b>Exposure Scenario Name</b>	Professional Use of Adhesives and Sealants
<b>Lifecycle Stage</b>	Widespread use by professional workers
<b>Contributing activities</b>	PROC 13 -Treatment of articles by dipping and pouring ERC 08c -Widespread use leading to inclusion into/onto article (indoor)
<b>Processes, tasks and activities covered</b>	Dispensing of product with applicator gun.
<b>2. Operational conditions and risk management measures</b>	
<b>Operating Conditions</b>	<b>Physical state:</b> Liquid. <b>General operating conditions:</b> Frequency of exposure at workplace [for one worker]: Daily; Indoor use;

**3M Scotch-Weld™ Urethane Structural Adhesive DP-610 (Part B)**

<b>Risk management measures</b>	Under the operational conditions described above the following risk management measures apply: <b>General risk management measures:</b> <b>Human health:</b> Wear chemically resistant gloves (tested to EN374) in combination with ‘basic’ employee training. Refer to Section 8 of the SDS for specific glove material.; <b>Environmental:</b> None needed;
<b>Waste management measures</b>	No use-specific waste management measures are required for this product. Refer to Section 13 of main SDS for disposal instructions:
<b>3. Prediction of exposure</b>	
<b>Prediction of exposure</b>	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

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

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



## Safety Data Sheet

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<b>Transportation version number:</b>	1.00 (07/02/2011)		

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 Structural Adhesive DP-610 (Part A)

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

##### Identified uses

Structural adhesive. Part A of a 2-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

### SECTION 2: Hazard identification

#### 2.1. Classification of the substance or mixture

CLP REGULATION (EC) No 1272/2008

The health and environmental classifications of this material have been derived using the calculation method, except in cases where test data are available or the physical form impacts classification. Classification(s) based on test data or physical form are noted below, if applicable.

##### CLASSIFICATION:

Acute Toxicity, Category 4 - Acute Tox. 4; H332  
Skin Sensitization, Category 1 - Skin Sens. 1; H317  
Specific Target Organ Toxicity-Single Exposure, Category 3 - STOT SE 3; H335

For full text of H phrases, see Section 16.

#### 2.2. Label elements

CLP REGULATION (EC) No 1272/2008

## 3M Scotch-Weld Urethane Structural Adhesive DP-610 (Part A)

### SIGNAL WORD

WARNING.

### Symbols:

GHS07 (Exclamation mark) |

### Pictograms



### Ingredients:

Ingredient	CAS Nbr	EC No.	% by Wt
HDI oligomers, isocyanurate		931-274-8	<= 100
hexamethylene-di-isocyanate	822-06-0	212-485-8	<= 0.15

### HAZARD STATEMENTS:

H332	Harmful if inhaled.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.

### PRECAUTIONARY STATEMENTS

#### Prevention:

P261A	Avoid breathing vapours.
P280E	Wear protective gloves.

#### Response:

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

H317	May cause an allergic skin reaction.
------	--------------------------------------

#### <=125 ml Precautionary statements

#### Prevention:

P280E	Wear protective gloves.
-------	-------------------------

#### Response:

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

### 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	% by Wt	Classification
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**3M Scotch-Weld Urethane Structural Adhesive DP-610 (Part A)**

			No.		
HDI oligomers, isocyanurate		931-274-8	01-2119485796-17	<= 100	Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335
hexamethylene-di-isocyanate	822-06-0	212-485-8		<= 0.15	Resp. Sens. 1A, H334; Skin Sens. 1A, H317; STOT SE 3, H335 - Nota 2 Acute Tox. 1, H330; Acute Tox. 4, H302; Skin Corr. 1C, H314; Eye Dam. 1, H318

Note: Any entry in the EC# column that begins with the numbers 6, 7, 8, or 9 are a Provisional List Number provided by ECHA pending publication of the official EC Inventory Number for the substance.  
Please see section 16 for the full text of any H statements referred to in this section

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

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

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

**Skin contact**

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

**Eye contact**

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

**If swallowed**

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

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

See Section 11.1 Information on toxicological effects

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

Not applicable

**SECTION 5: Fire-fighting measures****5.1. Extinguishing media**

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

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

None inherent in this product.

**Hazardous Decomposition or By-Products****Substance**

Isocyanates  
Carbon monoxide  
Carbon dioxide.  
Hydrogen cyanide.  
Oxides of nitrogen.

**Condition**

During combustion.  
During combustion.  
During combustion.  
During combustion.  
During combustion.

## 3M Scotch-Weld Urethane Structural Adhesive DP-610 (Part A)

### 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.

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

Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible. Place in a 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

Do not use in a confined area with minimal air exchange. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse.

### 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 heat. Store away from strong bases. 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	822-06-0	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

**3M Scotch-Weld Urethane Structural Adhesive DP-610 (Part A)**

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	822-06-0	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.

**Derived no effect level (DNEL)**

Ingredient	Degradation Product	Population	Human exposure pattern	DNEL
HDI oligomers, isocyanurate		Worker	Inhalation, Long-term exposure (8 hours), Local effects	0.5 mg/m <sup>3</sup>
HDI oligomers, isocyanurate		Worker	Inhalation, Short-term exposure, Local effects	1 mg/m <sup>3</sup>

**Predicted no effect concentrations (PNEC)**

Ingredient	Degradation Product	Compartment	PNEC
HDI oligomers, isocyanurate		Agricultural soil	53,182 mg/kg d.w.
HDI oligomers, isocyanurate		Freshwater	0.127 mg/l
HDI oligomers, isocyanurate		Freshwater sediments	266,700 mg/kg d.w.
HDI oligomers, isocyanurate		Intermittent releases to water	1.27 mg/l
HDI oligomers, isocyanurate		Marine water	0.0127 mg/l
HDI oligomers, isocyanurate		Marine water sediments	26,670 mg/kg d.w.
HDI oligomers, isocyanurate		Sewage Treatment Plant	38.3 mg/l

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

**8.2. Exposure controls**

In addition, refer to the annex for more information.

**8.2.1. Engineering controls**

Provide appropriate local exhaust ventilation for cutting, grinding, sanding or machining. 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**

## 3M Scotch-Weld Urethane Structural Adhesive DP-610 (Part A)

None required.

### Skin/hand protection

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

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

Material	Thickness (mm)	Breakthrough Time
Butyl rubber.	No data available	No data available
Polyethylene	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 – Butyl rubber  
Apron – Polyethylene

### 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

### 8.2.3. Environmental exposure controls

Refer to Annex

## SECTION 9: Physical and chemical properties

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

#### Appearance

Physical state

Liquid.

Colour

Transparent Colorless

Specific Physical Form:

Thin liquid.

Odor

Isocyanate

Odour threshold

No data available.

pH

Not applicable.

Boiling point/boiling range

approximately 230 No data available.

Melting point

-51 °C

Flammability (solid, gas)

Not applicable.

Explosive properties

Not classified

Oxidising properties

Not classified

Flash point

>=100 °C [Test Method:Closed Cup]

Autoignition temperature

Not applicable.



## 3M Scotch-Weld Urethane Structural Adhesive DP-610 (Part A)

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	1.17 [Ref Std: WATER=1]
Water solubility	Nil
Solubility- non-water	Nil
Partition coefficient: n-octanol/water	9.81
Evaporation rate	<i>No data available.</i>
Vapour density	<i>No data available.</i>
Decomposition temperature	<i>No data available.</i>
Viscosity	3,000 mPa-s [@ 23 °C ]
Density	1.17 g/cm <sup>3</sup> [@ 20 °C ]

### 9.2. Other information

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

### 10.5 Incompatible materials

Alcohols.

Amines.

Strong bases.

Water

### 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

### 3M Scotch-Weld Urethane Structural Adhesive DP-610 (Part A)

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

#### Inhalation

Harmful if inhaled. 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.

#### Skin contact

Contact with the skin during product use is not expected to result in significant irritation. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

#### 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.

#### Additional information:

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
HDI oligomers, isocyanurate	Inhalation-Dust/Mist	Professional judgement	LC50 estimated to be 1 - 5 mg/l
HDI oligomers, isocyanurate	Dermal	Rabbit	LD50 > 5,000 mg/kg
HDI oligomers, isocyanurate	Ingestion	Rat	LD50 > 5,000 mg/kg
hexamethylene-di-isocyanate	Dermal	Rat	LD50 > 7,000 mg/kg
hexamethylene-di-isocyanate	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.124 mg/l
hexamethylene-di-isocyanate	Inhalation-Vapour (4 hours)	Rat	LC50 0.124 mg/l
hexamethylene-di-isocyanate	Ingestion	Rat	LD50 710 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
HDI oligomers, isocyanurate	Rabbit	Minimal irritation
hexamethylene-di-isocyanate	Rabbit	Corrosive

#### Serious Eye Damage/Irritation

Name	Species	Value
HDI oligomers, isocyanurate	Rabbit	Mild irritant
hexamethylene-di-isocyanate	Rabbit	Corrosive

#### Skin Sensitisation

Name	Species	Value
HDI oligomers, isocyanurate	Guinea	Sensitising

**3M Scotch-Weld Urethane Structural Adhesive DP-610 (Part A)**

	pig	
hexamethylene-di-isocyanate	Multiple animal species	Sensitising

**Respiratory Sensitisation**

Name	Species	Value
HDI oligomers, isocyanurate	similar compounds	Not classified
hexamethylene-di-isocyanate	Human and animal	Sensitising

**Germ Cell Mutagenicity**

Name	Route	Value
HDI oligomers, isocyanurate	In Vitro	Not mutagenic
HDI oligomers, isocyanurate	In vivo	Not mutagenic
hexamethylene-di-isocyanate	In Vitro	Not mutagenic
hexamethylene-di-isocyanate	In vivo	Not mutagenic

**Carcinogenicity**

Name	Route	Species	Value
hexamethylene-di-isocyanate	Inhalation	Rat	Not carcinogenic

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

Name	Route	Value	Species	Test result	Exposure Duration
hexamethylene-di-isocyanate	Inhalation	Not classified for female reproduction	Rat	NOAEL 0.002 mg/l	7 weeks
hexamethylene-di-isocyanate	Inhalation	Not classified for development	Rat	NOAEL 0.002 mg/l	7 weeks
hexamethylene-di-isocyanate	Inhalation	Not classified for male reproduction	Rat	NOAEL 0.014 mg/l	4 weeks

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

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
HDI oligomers, isocyanurate	Inhalation	respiratory irritation	May cause respiratory irritation		NOAEL Not available	
hexamethylene-di-isocyanate	Inhalation	respiratory irritation	May cause respiratory irritation	Human and animal	NOAEL Not available	
hexamethylene-di-isocyanate	Inhalation	blood	Not classified	Human	NOAEL Not available	occupational exposure

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
HDI oligomers, isocyanurate	Inhalation	immune system   blood	Not classified	Rat	NOAEL 0.084 mg/l	2 weeks
hexamethylene-di-isocyanate	Inhalation	liver   kidney and/or bladder	Not classified	Rat	NOAEL 0.002 mg/l	3 weeks
hexamethylene-di-isocyanate	Inhalation	endocrine system	Not classified	Rat	NOAEL 0.0014 mg/l	4 weeks
hexamethylene-di-	Inhalation	blood	Not classified	Rat	NOAEL	2 years

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isocyanate					0.0012 mg/l	
hexamethylene-di-isocyanate	Inhalation	nervous system	Not classified	Rat	NOAEL 0.002 mg/l	7 weeks
hexamethylene-di-isocyanate	Inhalation	heart	Not classified	Rat	NOAEL 0.001 mg/l	90 days

**Aspiration Hazard**

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

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

**SECTION 12: Ecological information**

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

**12.1. Toxicity**

No product test data available.

Material	CAS #	Organism	Type	Exposure	Test endpoint	Test result
hexamethylene-di-isocyanate	822-06-0	Green Algae	Estimated	96 hours	EC50	14.8 mg/l
hexamethylene-di-isocyanate	822-06-0	Ricefish	Estimated	96 hours	LC50	71 mg/l
hexamethylene-di-isocyanate	822-06-0	Water flea	Estimated	48 hours	EC50	27 mg/l
hexamethylene-di-isocyanate	822-06-0	Green Algae	Estimated	72 hours	NOEC	10 mg/l
hexamethylene-di-isocyanate	822-06-0	Water flea	Estimated	21 days	NOEC	4.2 mg/l

**12.2. Persistence and degradability**

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
hexamethylene-di-isocyanate	822-06-0	Experimental Hydrolysis		Hydrolytic half-life	5 minutes (t 1/2)	Other methods
hexamethylene-di-isocyanate	822-06-0	Estimated Biodegradation	28 days	BOD	82 % BOD/ThBOD	OECD 301D - Closed bottle test

**12.3 : Bioaccumulative potential**

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
hexamethylene-di-isocyanate	822-06-0	Estimated Bioconcentration		Log Kow	0.02	Other methods

**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 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
080501*	Waste isocyanates
20 01 27*	Paint, inks, adhesives and resins containing dangerous substances

## **SECTION 14: Transportation information**

ADR: Not restricted for transport.

IMDG: Not restricted for transport.

IATA: Not restricted for transport.

## **SECTION 15: Regulatory information**

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

### **15.2. Chemical Safety Assessment**

A chemical safety assessment has not been carried out for this substance/mixture in accordance with Regulation (EC) No 1907/2006, as amended.

## **SECTION 16: Other information**

### **List of relevant H statements**

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

### **Revision information:**

### 3M Scotch-Weld Urethane Structural Adhesive DP-610 (Part A)

Industrial Use of Adhesives: Section 16: Annex information was added.  
 CLP: Ingredient table information was modified.  
 Section 3: Composition/ Information of ingredients table information was modified.  
 Section 5: Hazardous combustion products table information was modified.  
 Section 8: 8.2. Exposure controls information information was added.  
 Section 8: 8.2.3. Environmental exposure controls information information was added.  
 Section 8: DNEL table row information was added.  
 Section 8: PNEC table row information was added.  
 Section 9: Boiling point information information was modified.  
 Section 09: Color information was added.  
 Section 9: Flash point information information was modified.  
 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: Carcinogenicity Table information was modified.  
 Section 11: Germ Cell Mutagenicity Table information was modified.  
 Section 11: Health Effects - Eye information information was modified.  
 Section 11: Reproductive Toxicity Table information was modified.  
 Section 11: Respiratory Sensitization Table information was modified.  
 Section 11: Serious Eye Damage/Irritation Table information was modified.  
 Section 11: Skin Corrosion/Irritation Table information was modified.  
 Section 11: Skin Sensitization Table information was modified.  
 Section 11: Target Organs - Repeated Table information was modified.  
 Section 11: Target Organs - Single Table information was modified.  
 Section 12: Component ecotoxicity information information was modified.  
 Section 12: Persistence and Degradability information information was modified.  
 Section 12: Bioaccumulative potential information information was modified.  
 Annex: Prediction of exposure statement information was added.  
 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.

## Annex

1. Title	
<b>Substance identification</b>	HDI oligomers, isocyanurate; EC No. 931-274-8;
<b>Exposure Scenario Name</b>	Industrial Use of Adhesives
<b>Lifecycle Stage</b>	Use at industrial sites
<b>Contributing activities</b>	PROC 13 -Treatment of articles by dipping and pouring ERC 05 -Use at industrial site leading to inclusion into/onto article
<b>Processes, tasks and activities covered</b>	Application of product with applicator gun.
2. Operational conditions and risk management measures	
<b>Operating Conditions</b>	<b>Physical state:</b> Liquid. <b>General operating conditions:</b> Duration of exposure per day at workplace [for one worker]: 8 hours/day; Indoor use with Local Exhaust Ventilation; Processing Temperature:: < 40 degree Celsius;
<b>Risk management measures</b>	Under the operational conditions described above the following risk management measures apply: <b>General risk management measures:</b> <b>Human health:</b> Full-facepiece air-purifying respirator; Provide a good standard of general ventilation (not less than 3 to 5 air changes per hour);

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	<b>Environmental:</b> None needed;
<b>Waste management measures</b>	Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point; Do not release to waterways or sewers; Incinerate in a permitted hazardous waste incinerator;
<b>3. Prediction of exposure</b>	
<b>Prediction of exposure</b>	Human and environmental exposures are not expected to exceed the DNELs and PNECs when the identified risk management measures are adopted.

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