



## Safety Data Sheet

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<b>Document group:</b>	07-4000-1	<b>Version number:</b>	4.00
<b>Issue Date:</b>	04/07/2021	<b>Supersedes date:</b>	04/10/2016

This Safety Data Sheet has been prepared in accordance with the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (Safe Work Australia, December 2011)

### SECTION 1: Identification

#### 1.1. Product identifier

3M™ Scotch-Weld™ PUR Adhesive TE040

#### Product Identification Numbers

62-3898-5238-5

#### 1.2. Recommended use and restrictions on use

##### Recommended use

Structural adhesive.

For Industrial or Professional use only.

#### 1.3. Supplier's details

**Address:** 3M Australia - Building A, 1 Rivett Road, North Ryde NSW 2113  
**Telephone:** 136 136  
**E Mail:** productinfo.au@mmm.com  
**Website:** www.3m.com.au

#### 1.4. Emergency telephone number

EMERGENCY: 1800 097 146 (Australia only)

### SECTION 2: Hazard identification

This product is classified as a hazardous chemical according to the Model Work Health and Safety Regulations, 2011, in accordance with applicable State and Territory legislation.

Refer to Section 14 of this Safety Data Sheets for product Dangerous Goods Classification.

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

Respiratory Sensitizer: Category 1.

Skin Sensitizer: Category 1.

Specific Target Organ Toxicity (repeated exposure): Category 2.

#### 2.2. Label elements

The label elements below were prepared in accordance with the Code of Practice on Preparation of Safety Data Sheets for

Hazardous Chemicals (Safe Work Australia, December 2011). This information may be different from the actual product label.

**Signal word**

Danger

**Symbols**

Health Hazard |

**Pictograms**



**Hazard statements**

- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H317 May cause an allergic skin reaction.
  
- H373 May cause damage to organs through prolonged or repeated exposure: respiratory system.

**Precautionary statements**

**Prevention:**

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P284 Wear respiratory protection.

**Response:**

- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P314 Get medical advice/attention if you feel unwell.
- P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
- P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.
  
- P362 + P364 Take off contaminated clothing and wash it before reuse.

**Disposal:**

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

**2.3. Other assigned/identified product hazards**

Persons previously sensitised to isocyanates may develop a cross-sensitisation reaction to other isocyanates. May cause thermal burns.

**2.4. Other hazards which do not result in classification**

May be harmful if swallowed.  
Causes mild skin irritation.

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

This material is a mixture.

Ingredient	CAS Nbr	% by Weight
P,P'-Diphenylmethane diisocyanate (MDI)	101-68-8	< 3
Polyurethane resin	Trade Secret	> 97

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Inhalation

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

#### Skin contact

Immediately flush skin with large amounts of cold water for at least 15 minutes. DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Cover affected area with a clean dressing. Get immediate medical attention.

#### Eye contact

Immediately flush eyes with large amounts of water for at least 15 minutes. DO NOT ATTEMPT TO REMOVE MOLTEN MATERIAL. Get immediate medical attention.

#### If swallowed

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

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

Allergic respiratory reaction (difficulty breathing, wheezing, cough, and tightness of chest). Allergic skin reaction (redness, swelling, blistering, and itching). Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

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

Not applicable

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

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

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

None inherent in this product.

### Hazardous Decomposition or By-Products

#### Substance

Amine compounds.  
Isocyanates  
Carbon monoxide.  
Carbon dioxide.  
Hydrogen cyanide.

#### Condition

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

### 5.3. Special protective actions 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 vapors, 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**

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. 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. Dispose of collected material as soon as possible in accordance with applicable local/regional/national/international regulations.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Avoid skin contact with hot material. Avoid breathing of dust created by cutting, sanding, grinding or machining. 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. Wash contaminated clothing before reuse.

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

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

**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
P,P'-Diphenylmethane diisocyanate (MDI)	101-68-8	ACGIH	TWA:0.005 ppm	
P,P'-Diphenylmethane diisocyanate (MDI)	101-68-8	Australia OELs	TWA(8 hours):0.02 mg/m <sup>3</sup> ;STEL(15 minutes):0.07 mg/m <sup>3</sup>	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

Australia OELs : Australia. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment

CMRG : Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

Sen: Sensitiser

Sk: Absorption through the skin may be a significant source 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:  
Safety glasses with side shields.

Select and use eye protection in accordance with AS/NZS 1336. Eye protection should comply with the performance specifications of AS/NZS 1337.

#### 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: Butyl rubber.

Neoprene.

Nitrile rubber.

Select and use gloves according to AS/NZ 2161.

#### 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.

Select and use respirators according to AS/NZS 1715. Respirators should comply with AS/NZS 1716 performance specifications. For information about respirators, call 3M on 1800 024 464.

#### Thermal hazards

Wear heat insulating gloves when handling hot material to prevent thermal burns.

## SECTION 9: Physical and chemical properties

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

<b>Physical state</b>	Solid.
<b>Specific Physical Form:</b>	Waxy Solid
<b>Colour</b>	Off-White
<b>Odour</b>	Mild Odour
<b>Odour threshold</b>	<i>No data available.</i>
<b>pH</b>	<i>Not applicable.</i>
<b>Melting point/Freezing point</b>	55 °C
<b>Boiling point/Initial boiling point/Boiling range</b>	Approximately 150 °C [ <i>@ 666.61 Pa</i> ] [ <i>Details:MDI</i> ]
<b>Flash point</b>	Approximately 198.9 °C
<b>Evaporation rate</b>	<i>No data available.</i>
<b>Flammability (solid, gas)</b>	Not classified
<b>Flammable Limits(LEL)</b>	<i>Not applicable.</i>
<b>Flammable Limits(UEL)</b>	<i>Not applicable.</i>
<b>Vapour pressure</b>	0 Pa [ <i>@ 25 °C</i> ] [ <i>Details:MDI</i> ]
<b>Vapor Density and/or Relative Vapor Density</b>	8.6 [ <i>Ref Std: AIR=1</i> ] [ <i>Details:MDI</i> ]
<b>Density</b>	1.05 g/cm <sup>3</sup>
<b>Relative density</b>	1.05 [ <i>Ref Std: WATER=1</i> ]
<b>Water solubility</b>	Nil

<b>Solubility- non-water</b>	<i>No data available.</i>
<b>Partition coefficient: n-octanol/water</b>	<i>No data available.</i>
<b>Autoignition temperature</b>	<i>No data available.</i>
<b>Decomposition temperature</b>	<i>No data available.</i>
<b>Viscosity/Kinematic Viscosity</b>	9,000 mPa-s [ @ 121.1 °C ] [ <i>Test Method: Brookfield</i> ]
<b>Volatile organic compounds (VOC)</b>	
<b>Percent volatile</b>	
<b>VOC less H2O &amp; exempt solvents</b>	0 g/l [ <i>Test Method: calculated SCAQMD rule 443.1</i> ]
<b>VOC less H2O &amp; exempt solvents</b>	0 % [ <i>Test Method: calculated SCAQMD rule 443.1</i> ]
<b>Molecular weight</b>	<i>No data available.</i>

**Nanoparticles**

This material does not contain nanoparticles.

**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. Conditions to avoid**

Heat.

**10.4. Possibility of hazardous reactions**

Hazardous polymerisation will not occur.

**10.5 Incompatible materials**

Amines.

Alcohols.

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

**10.6 Hazardous decomposition products****Substance****Condition**

None known.

**SECTION 11: Toxicological information**

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

**11.1 Information on Toxicological effects****Signs and Symptoms of Exposure**

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

**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

During heating: Thermal Burns: Signs/symptoms may include intense pain, redness and swelling, and tissue destruction. Mild Skin Irritation: Signs/symptoms may include localized redness, swelling, itching, and dryness. Allergic skin reaction (non-photo induced): Signs/symptoms may include redness, swelling, blistering, and itching.

#### Eye contact

During heating: Thermal Burns: Signs/symptoms may include severe pain, redness and swelling, and tissue destruction.

#### Ingestion

May be harmful if swallowed.

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:

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:

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 ATE2,000 - 5,000 mg/kg
Polyurethane resin	Dermal		LD50 estimated to be > 5,000 mg/kg
Polyurethane resin	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
P,P'-Diphenylmethane diisocyanate (MDI)	Dermal	Rabbit	LD50 > 5,000 mg/kg
P,P'-Diphenylmethane diisocyanate (MDI)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
P,P'-Diphenylmethane diisocyanate (MDI)	Ingestion	Rat	LD50 31,600 mg/kg

ATE = acute toxicity estimate

#### Skin Corrosion/Irritation

Name	Species	Value
P,P'-Diphenylmethane diisocyanate (MDI)	official classification	Irritant

#### Serious Eye Damage/Irritation

Name	Species	Value
P,P'-Diphenylmethane diisocyanate (MDI)	official classification	Severe irritant

#### Skin Sensitisation

Name	Species	Value
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P,P'-Diphenylmethane diisocyanate (MDI)	official classification	Sensitising

**Respiratory Sensitisation**

Name	Species	Value
P,P'-Diphenylmethane diisocyanate (MDI)	Human	Sensitising

**Germ Cell Mutagenicity**

Name	Route	Value
P,P'-Diphenylmethane diisocyanate (MDI)	In Vitro	Some positive data exist, but the data are not sufficient for classification

**Carcinogenicity**

Name	Route	Species	Value
P,P'-Diphenylmethane diisocyanate (MDI)	Inhalation	Rat	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
P,P'-Diphenylmethane diisocyanate (MDI)	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis

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

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
P,P'-Diphenylmethane diisocyanate (MDI)	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	

**Specific Target Organ Toxicity - repeated exposure**

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
P,P'-Diphenylmethane diisocyanate (MDI)	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks

**Aspiration Hazard**

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

**Exposure Levels**

Refer Section 8.1 Control Parameters of this Safety Data Sheet.

**Interactive Effects**

Not determined.

**SECTION 12: Ecological information**



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

### 12.1. Toxicity

#### Acute aquatic hazard:

Not acutely toxic to aquatic life by GHS criteria.

#### Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

Material	CAS Number	Organism	Type	Exposure	Test endpoint	Test result
P,P'-Diphenylmethane diisocyanate (MDI)	101-68-8	Activated sludge	Estimated	3 hours	EC50	>100 mg/l
P,P'-Diphenylmethane diisocyanate (MDI)	101-68-8	Green algae	Estimated	72 hours	EC50	>1,640 mg/l
P,P'-Diphenylmethane diisocyanate (MDI)	101-68-8	Water flea	Estimated	24 hours	EC50	>1,000 mg/l
P,P'-Diphenylmethane diisocyanate (MDI)	101-68-8	Zebra Fish	Estimated	96 hours	LC50	>1,000 mg/l
P,P'-Diphenylmethane diisocyanate (MDI)	101-68-8	Green algae	Estimated	72 hours	NOEC	1,640 mg/l
P,P'-Diphenylmethane diisocyanate (MDI)	101-68-8	Water flea	Estimated	21 days	NOEC	10 mg/l
Polyurethane resin	Trade Secret		Data not available or insufficient for classification			N/A

### 12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
P,P'-Diphenylmethane diisocyanate (MDI)	101-68-8	Estimated Hydrolysis		Hydrolytic half-life	20 hours (t 1/2)	Non-standard method
Polyurethane	Trade Secret	Data not			N/A	

resin		available- insufficient				
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### 12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
P,P'-Diphenylmethane diisocyanate (MDI)	101-68-8	Experimental BCF-Carp	28 days	Bioaccumulation factor	200	OECD 305E - Bioaccumulation flow-through fish test
Polyurethane resin	Trade Secret	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 Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1. Disposal 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. Proper destruction may require the use of additional fuel during incineration processes. As a disposal alternative, incinerate in a permitted waste incineration facility.

## SECTION 14: Transport Information

### Australian Dangerous Goods Code (ADG) - Road/Rail Transport

UN No.: Not applicable.

Proper shipping name: Not applicable.

Class/Division: Not applicable.

Sub Risk: Not applicable.

Packing Group: Not applicable.

Hazchem Code: Not applicable

IERG: Not applicable.

### International Air Transport Association (IATA) - Air Transport

UN No.: Not applicable.

Proper shipping name: Not applicable.

Class/Division: Not applicable.

Sub Risk: Not applicable.

Packing Group: Not applicable.

### International Maritime Dangerous Goods Code (IMDG)- Marine Transport

UN No.: Not applicable.

Proper shipping name: Not applicable.

Class/Division: Not applicable.

Sub Risk: Not applicable.

**Packing Group:** Not applicable.

**Marine Pollutant:** Not applicable.

## SECTION 15: Regulatory information

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

**Australian Inventory Status:**

An ingredient(s) in this product is being introduced under the no unreasonable risk non-cosmetic (<100 Kg) exemption provisions specified in Section 21(4) of the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

**Poison Schedule:** This product is intended for Industrial or Professional Use only and therefore is not packaged and labelled in accordance with the requirements of the Standard for the Uniform Scheduling of Medicines and Poisons.

## SECTION 16: Other information

**Revision information:**

Complete document review.

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 Safety 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.

Greenguard ® is a United States based program. The 'Low VOC' reference related to United States Federal and State regulations exemptions for some solvents.

**3M Australia SDSs are available at [www.3m.com.au](http://www.3m.com.au)**