



## 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.

This Safety Data Sheet has been prepared in accordance with the SS586 Specification for Hazard Communication for Hazardous Chemicals and Dangerous Goods.

<b>Document group:</b>	11-3195-2	<b>Version number:</b>	1.06
<b>Issue Date:</b>	27/11/2019	<b>Supersedes date:</b>	15/07/2018

### IDENTIFICATION

#### 1.1. Product identifier

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

#### Product Identification Numbers

62-3549-6440-5      87-2500-0412-1      87-2500-0436-0      87-2500-0437-8

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

##### Recommended use

Two-Component Polyurethane Adhesive

#### 1.3. Supplier's details

**Address:** 3M Technologies (S) Pte Ltd,10 Ang Mo Kio Street 65, Singapore 569059  
**Telephone:** +65 6450 8888  
**Website:** www.3m.com.sg

#### 1.4. Emergency telephone number

**Company Emergency Hotline:** +65 6591 6888 (8.15am - 5.00pm, Monday - Friday)

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

10-8546-3, 10-8304-7

### TRANSPORT INFORMATION

#### International Regulations

**UN No.:** Not restricted for transport.

**UN Proper shipping name:** Not restricted for transport.

**Transportation Class (IMO):** None assigned

**Transportation Class (IATA):** None assigned

**Other Dangerous Goods Descriptions (IMO):** None assigned

**Other Dangerous Goods Descriptions (IATA):** None assigned

**Packing Group:** None assigned

**Marine pollutant:** None assigned

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 Singapore SDSs are available at [www.3m.com.sg](http://www.3m.com.sg)**



## 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.

This Safety Data Sheet has been prepared in accordance with the SS586 Specification for Hazard Communication for Hazardous Chemicals and Dangerous Goods.

<b>Document group:</b>	10-8304-7	<b>Version number:</b>	1.04
<b>Issue Date:</b>	27/11/2019	<b>Supersedes date:</b>	23/12/2018

### SECTION 1: Identification

#### 1.1. Product identifier

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

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

##### Recommended use

Automotive., Base of 2-Part Urethane Adhesive

#### 1.3. Supplier's details

**Address:** 3M Technologies (S) Pte Ltd,10 Ang Mo Kio Street 65, Singapore 569059  
**Telephone:** +65 6450 8888  
**Website:** www.3m.com.sg

#### 1.4. Emergency telephone number

+65 6591 6888 (8.15am - 5.00pm, Monday - Friday)

### SECTION 2: Hazard identification

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

This product is not classified as hazardous per GHS criteria as implemented by Singapore Standard SS586.

#### 2.2. Label elements

##### SIGNAL WORD

Not applicable.

##### Symbols

Not applicable.

##### Pictograms

Not applicable.

#### 2.3. Other hazards

None known.

### SECTION 3: Composition/information on ingredients

This material is a mixture.

<b>Ingredient</b>	<b>CAS Nbr</b>	<b>% by Wt</b>
Polyester resin	Trade Secret	30 - 60
Propane-1,2-diol, propoxylated	25322-69-4	10 - 30
Talc	14807-96-6	10 - 30
Polyoxypropylenetriol	25723-16-4	3 - 7
o-diethylbisaniline	13680-35-8	1 - 5

## **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. Suitable 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**

#### **Substance**

Carbon monoxide.  
Carbon dioxide.  
Irritant vapours or gases.

#### **Condition**

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. 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 in accordance with applicable local/regional/national/international regulations.

**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.

**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.

<b>Ingredient</b>	<b>CAS Nbr</b>	<b>Agency</b>	<b>Limit type</b>	<b>Additional comments</b>
DUST, INERT OR NUISANCE	14807-96-6	Singapore PELs	TWA(as particulate)(8 hours):10 mg/m3	
Talc	14807-96-6	ACGIH	TWA(respirable fraction):2 mg/m3	A4: Not class. as human carcin
Talc	14807-96-6	Singapore PELs	TWA(8 hours):2 mg/m3	
Propane-1,2-diol, propoxylated	25322-69-4	AIHA	TWA(as aerosol):10 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

Singapore PELs : Singapore. Workplace Safety and Health (Permissible Exposure Levels of Toxic Substances) Order

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

**8.2. Exposure controls**

**8.2.1. Engineering controls**

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

**8.2.2. Personal protective equipment (PPE)**

**Eye/face protection**

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.

## SECTION 9: Physical and chemical properties

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

Physical state	Liquid.
Specific Physical Form:	Paste
Color	Off-White
Odor	Slight Odor, Mild Odor
Odour threshold	<i>No data available.</i>
pH	<i>Not applicable.</i>
Melting point/Freezing point	<i>Not applicable.</i>
Boiling point/Initial boiling point/Boiling range	>=178.9 °C
Flash point	>=178.9 °C [ <i>Test Method:</i> Closed Cup]
Evaporation rate	<i>Not applicable.</i>
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	<i>No data available.</i>
Flammable Limits(UEL)	<i>No data available.</i>
Vapour pressure	<i>No data available.</i>
Vapour density	<i>Not applicable.</i>
Density	1.31 g/ml
Relative density	1.31 [ <i>Ref Std:</i> WATER=1]
Water solubility	Negligible
Solubility- non-water	<i>No data available.</i>
Partition coefficient: n-octanol/water	<i>No data available.</i>
Autoignition temperature	<i>No data available.</i>
Decomposition temperature	<i>No data available.</i>
Viscosity	10,000 - 40,000 mPa-s [ <i>@</i> 23 °C ]
Molecular weight	<i>No data available.</i>
Volatile organic compounds (VOC)	<=7 g/l [ <i>Test Method:</i> calculated SCAQMD rule 443.1]
VOC less H <sub>2</sub> O & exempt solvents	<=7 g/l [ <i>Test Method:</i> calculated SCAQMD rule 443.1]

## 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**

Strong oxidising agents.

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

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

**SECTION 11: Toxicological information**

The information below may not 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.

**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
Polyoxypropylenetriol	Dermal	Rat	LD50 > 2,000 mg/kg
Polyoxypropylenetriol	Ingestion	Rat	LD50 > 2,500 mg/kg
o-diethylbisaniiline	Ingestion	Rat	LD50 1,901 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
Polyoxypropylenetriol	Rabbit	No significant irritation
o-diethylbisaniiline	Rabbit	Minimal irritation

### Serious Eye Damage/Irritation

Name	Species	Value
Propane-1,2-diol, propoxylated	Rabbit	No significant irritation
Talc	Rabbit	No significant irritation
Polyoxypropylenetriol	Rabbit	Mild irritant
o-diethylbisaniiline	Rabbit	No significant irritation

### Skin Sensitisation

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

### 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
o-diethylbisaniiline	In Vitro	Not mutagenic

### Carcinogenicity

Name	Route	Species	Value
Talc	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
Talc	Ingestion	Not classified for development	Rat	NOAEL 1,600 mg/kg	during organogenesis

### Target Organ(s)

#### Specific Target Organ Toxicity - single exposure

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

#### 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

**Aspiration Hazard**

For the component/components, either no data are currently available or the data are 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 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 Nbr	Organism	Type	Exposure	Test endpoint	Test result
Polyester resin	Trade Secret		Data not available or insufficient for classification			
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			
Polyoxypropyl enetriol	25723-16-4	Green algae	Experimental	72 hours	EC50	>100 mg/l

Polyoxypropyl enetriol	25723-16-4	Water flea	Experimental	48 hours	EC50	>100 mg/l
Polyoxypropyl enetriol	25723-16-4	Zebra Fish	Experimental	96 hours	LC50	>100 mg/l
Polyoxypropyl enetriol	25723-16-4	Green algae	Experimental	72 hours	NOEC	100 mg/l
Polyoxypropyl enetriol	25723-16-4	Water flea	Experimental	21 days	NOEC	8.5 mg/l
o-diethylbisaniiline	13680-35-8	Green Algae	Endpoint not reached	72 hours	EC50	>100 mg/l
o-diethylbisaniiline	13680-35-8	Water flea	Experimental	48 hours	No tox obs at lmt of water sol	>100 mg/l
o-diethylbisaniiline	13680-35-8	Zebra Fish	Experimental	96 hours	LC50	1.32 mg/l
o-diethylbisaniiline	13680-35-8	Green Algae	Experimental	72 hours	NOEC	0.19 mg/l

**12.2. Persistence and degradability**

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Polyester resin	Trade Secret	Data not available-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 available-insufficient			N/A	
Polyoxypropyl enetriol	25723-16-4	Experimental Biodegradation	28 days	BOD	84 % BOD/ThBOD	Other methods
o-diethylbisaniiline	13680-35-8	Experimental Biodegradation	28 days	Readily Biodegradable	4.18 % BOD/ThBOD	OECD 301C - MITI test (I)

**12.3 : Bioaccumulative potential**

Material	CAS Nbr	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
Polyoxypropyl	25723-16-4	Experimental		Log Kow	1.8	Other methods

enetriol		Bioconcentration				
o-diethylbisaniline	13680-35-8	Estimated Bioconcentration		Bioaccumulation factor	2344	Estimated: Bioconcentration factor

**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.

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.

## SECTION 14: Transport Information

**International Regulations**

UN No.: None assigned

UN Proper shipping name: None assigned

Transportation Class (IMO): None assigned

Transportation Class (IATA): None assigned

Other Dangerous Goods Descriptions (IMO): None assigned

Other Dangerous Goods Descriptions (IATA): None assigned

Packing Group: None assigned

Marine pollutant: None assigned

## SECTION 15: Regulatory information

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

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

## **SECTION 16: Other information**

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 Singapore SDSs are available at [www.3m.com.sg](http://www.3m.com.sg)**



## Safety Data Sheet

Copyright,2022, 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.

This Safety Data Sheet has been prepared in accordance with the SS586 Specification for Hazard Communication for Hazardous Chemicals and Dangerous Goods.

<b>Document group:</b>	10-8546-3	<b>Version number:</b>	1.12
<b>Issue Date:</b>	20/09/2022	<b>Supersedes date:</b>	27/11/2019

### SECTION 1: Identification

#### 1.1. Product identifier

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

#### Product Identification Numbers

LC-B100-0907-5      LC-B100-0962-2      LC-B100-0962-3      LA-D100-0169-8      62-3649-8540-8

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

##### Recommended use

Accelerator of 2-Part Urethane Adhesive, Industrial use.

#### 1.3. Supplier's details

**Address:** 3M Technologies (S) Pte Ltd, 10 Ang Mo Kio Street 65, Singapore 569059  
**Telephone:** +65 6450 8888  
**Website:** www.3m.com.sg

#### 1.4. Emergency telephone number

+65 6591 6888 (8.15am - 5.00pm, Monday - Friday)

### SECTION 2: Hazard identification

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

Serious Eye Damage/Irritation: Category 2A  
Skin Corrosion/Irritation: Category 2.  
Respiratory Sensitizer: Category 1.  
Skin Sensitizer: Category 1.  
Specific Target Organ Toxicity (single exposure): Category 3.  
Specific Target Organ Toxicity (repeated exposure): Category 1.

#### 2.2. Label elements

##### SIGNAL WORD

DANGER!

##### Symbols

Exclamation mark | Health Hazard |

**Pictograms****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.
H372	Causes damage to organs through prolonged or repeated exposure: respiratory system

**PRECAUTIONARY STATEMENTS****Prevention:**

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P284	Wear respiratory protection.
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 CENTER 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.

**2.3. Other hazards**

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

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

This material is a mixture.

Ingredient	CAS Nbr	% by Wt
Urethane Prepolymer - NJTS Reg. No. 04499600-5770P	Trade Secret	15 - 40
P,P'-Methylenebis(phenyl isocyanate)	101-68-8	10 - 30
Polymethylene Polyphenylene Isocyanate	9016-87-9	10 - 30
Talc	14807-96-6	10 - 30
Diphenylmethane Diisocyanate (MDI)	26447-40-5	< 10
Zeolite	1318-02-1	1 - 5

**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**

Irritating to the respiratory tract (coughing, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain). 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 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**

**Substance**

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

**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**

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 authorized 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 in accordance with applicable local/regional/national/international regulations.

## **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.

## **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.

<b>Ingredient</b>	<b>CAS Nbr</b>	<b>Agency</b>	<b>Limit type</b>	<b>Additional comments</b>
P,P'-Methylenebis(phenyl isocyanate)	101-68-8	ACGIH	TWA:0.005 ppm	
P,P'-Methylenebis(phenyl isocyanate)	101-68-8	Singapore PELs	TWA(8 hours):0.051 mg/m3(0.005 ppm)	
Aluminum, insoluble compounds	1318-02-1	ACGIH	TWA(respirable fraction):1 mg/m3	A4: Not class. as human carcin
Talc	14807-96-6	ACGIH	TWA(respirable fraction):2 mg/m3	A4: Not class. as human carcin
Talc	14807-96-6	Singapore PELs	TWA(8 hours):2 mg/m3	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

Singapore PELs : Singapore. Workplace Safety and Health (Permissible Exposure Levels of Toxic Substances) Order

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

### **8.2. Exposure controls**

#### **8.2.1. Engineering controls**

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

#### **8.2.2. Personal protective equipment (PPE)**

##### **Eye/face protection**

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.

Indirect vented goggles.



**Skin/hand protection**

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

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

Neoprene.

Nitrile rubber.

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

Apron – Butyl rubber

Neoprene apron.

Apron – Nitrile

**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.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid.
<b>Specific Physical Form:</b>	Paste
<b>Color</b>	Brown
<b>Odor</b>	Slight Odor
<b>Odour threshold</b>	<i>No data available.</i>
<b>pH</b>	<i>Not applicable.</i>
<b>Melting point/Freezing point</b>	<i>Not applicable.</i>
<b>Boiling point/Initial boiling point/Boiling range</b>	$\geq 186$ °C
<b>Flash point</b>	$\geq 186.1$ °C [ <i>Test Method: Closed Cup</i> ]
<b>Evaporation rate</b>	<i>Not applicable.</i>
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Flammable Limits(LEL)</b>	<i>Not applicable.</i>
<b>Flammable Limits(UEL)</b>	<i>Not applicable.</i>
<b>Vapor Density and/or Relative Vapor Density</b>	<i>No data available.</i>
<b>Density</b>	1.34 g/ml
<b>Relative density</b>	1.34 [ <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>Autoignition temperature</b>	<i>Not applicable.</i>
<b>Decomposition temperature</b>	<i>No data available.</i>
<b>Viscosity/Kinematic Viscosity</b>	15,000 - 32,000 mPa-s [ <i>@ 23 °C</i> ] [ <i>Test Method: Brookfield</i> ]
<b>Volatile organic compounds (VOC)</b>	0 g/l [ <i>Test Method: calculated SCAQMD rule 443.1</i> ]
<b>Percent volatile</b>	0 % weight
<b>VOC less H2O &amp; exempt solvents</b>	0 g/l [ <i>Test Method: calculated SCAQMD rule 443.1</i> ]

Molecular weight

*No data available.***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****Substance****Condition**

None known.

Refer to section 5.2 for hazardous decomposition products during combustion.

**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**

Skin Irritation: Signs/symptoms may include localized 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:**

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	Ingestion		No data available; calculated ATE >5,000 mg/kg
Urethane Prepolymer - NJTS Reg. No. 04499600-5770P	Dermal		LD50 estimated to be > 5,000 mg/kg
Urethane Prepolymer - NJTS Reg. No. 04499600-5770P	Ingestion		LD50 estimated to be 2,000 - 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
Talc	Dermal		LD50 estimated to be > 5,000 mg/kg
Talc	Ingestion		LD50 estimated to be > 5,000 mg/kg
P,P'-Methylenebis(phenyl isocyanate)	Dermal	Rabbit	LD50 > 5,000 mg/kg
P,P'-Methylenebis(phenyl isocyanate)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
P,P'-Methylenebis(phenyl isocyanate)	Ingestion	Rat	LD50 31,600 mg/kg
Diphenylmethane Diisocyanate (MDI)	Dermal	Rabbit	LD50 > 5,000 mg/kg
Diphenylmethane Diisocyanate (MDI)	Inhalation-Dust/Mist (4 hours)	Rat	LC50 0.368 mg/l
Diphenylmethane Diisocyanate (MDI)	Ingestion	Rat	LD50 31,600 mg/kg
Zeolite	Dermal	Rabbit	LD50 > 2,000 mg/kg
Zeolite	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 4.57 mg/l
Zeolite	Ingestion	Rat	LD50 > 5,000 mg/kg

ATE = acute toxicity estimate

**Skin Corrosion/Irritation**

Name	Species	Value
Polymethylene Polyphenylene Isocyanate	official classification	Irritant

Talc	Rabbit	No significant irritation
P,P'-Methylenebis(phenyl isocyanate)	official classification	Irritant
Diphenylmethane Diisocyanate (MDI)	official classification	Irritant
Zeolite	Rabbit	No significant irritation

**Serious Eye Damage/Irritation**

Name	Species	Value
Polymethylene Polyphenylene Isocyanate	official classification	Severe irritant
Talc	Rabbit	No significant irritation
P,P'-Methylenebis(phenyl isocyanate)	official classification	Severe irritant
Diphenylmethane Diisocyanate (MDI)	official classification	Severe irritant
Zeolite	Rabbit	Mild irritant

**Sensitization:**

**Skin Sensitisation**

Name	Species	Value
Polymethylene Polyphenylene Isocyanate	official classification	Sensitising
P,P'-Methylenebis(phenyl isocyanate)	official classification	Sensitising
Diphenylmethane Diisocyanate (MDI)	official classification	Sensitising

**Respiratory Sensitisation**

Name	Species	Value
Polymethylene Polyphenylene Isocyanate	Human	Sensitising
Talc	Human	Not classified
P,P'-Methylenebis(phenyl isocyanate)	Human	Sensitising
Diphenylmethane Diisocyanate (MDI)	Human	Sensitising

**Germ Cell Mutagenicity**

Name	Route	Value
Polymethylene Polyphenylene Isocyanate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Talc	In Vitro	Not mutagenic
Talc	In vivo	Not mutagenic
P,P'-Methylenebis(phenyl isocyanate)	In Vitro	Some positive data exist, but the data are not sufficient for classification
Diphenylmethane Diisocyanate (MDI)	In Vitro	Some positive data exist, but the data are not sufficient for classification

**Carcinogenicity**

Name	Route	Species	Value
Polymethylene Polyphenylene Isocyanate	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification

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

Talc	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
P,P'-Methylenebis(phenyl isocyanate)	Inhalation	Rat	Some positive data exist, but the data are not sufficient for classification
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
Polymethylene Polyphenylene Isocyanate	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis
Talc	Ingestion	Not classified for development	Rat	NOAEL 1,600 mg/kg	during organogenesis
P,P'-Methylenebis(phenyl isocyanate)	Inhalation	Not classified for development	Rat	NOAEL 0.004 mg/l	during organogenesis
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
Polymethylene Polyphenylene Isocyanate	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
P,P'-Methylenebis(phenyl isocyanate)	Inhalation	respiratory irritation	May cause respiratory irritation	official classification	NOAEL Not available	
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
Polymethylene Polyphenylene Isocyanate	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
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
P,P'-Methylenebis(phenyl isocyanate)	Inhalation	respiratory system	Causes damage to organs through prolonged or repeated exposure	Rat	LOAEL 0.004 mg/l	13 weeks
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.

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

**SECTION 12: Ecological information**

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

expected to be available for exposure, or the data is considered not relevant to the material as a whole.

### 12.1. Toxicity

#### Acute aquatic hazard:

Not acutely toxic to aquatic life by GHS criteria.

#### Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available.

Material	CAS Nbr	Organism	Type	Exposure	Test endpoint	Test result
Urethane Prepolymer - NJTS Reg. No. 04499600-5770P	Trade Secret	Water flea	Estimated	24 hours	EC50	>100 mg/l
Urethane Prepolymer - NJTS Reg. No. 04499600-5770P	Trade Secret	Zebra Fish	Estimated	24 hours	LC50	>100 mg/l
P,P'-Methylenebis(p henyl isocyanate)	101-68-8	Activated sludge	Analogous Compound	3 hours	EC50	>100 mg/l
P,P'-Methylenebis(p henyl isocyanate)	101-68-8	Water flea	Analogous Compound	24 hours	EC50	>1,000 mg/l
P,P'-Methylenebis(p henyl isocyanate)	101-68-8	Zebra Fish	Analogous Compound	96 hours	LC50	>1,000 mg/l
P,P'-Methylenebis(p henyl isocyanate)	101-68-8	Water flea	Analogous Compound	21 days	NOEC	>=10 mg/l
Polymethylene Polyphenylene Isocyanate	9016-87-9	Green algae	Analogous Compound	72 hours	No tox obs at lmt of water sol	>100 mg/l
Polymethylene Polyphenylene Isocyanate	9016-87-9	Water flea	Analogous Compound	24 hours	No tox obs at lmt of water sol	>100 mg/l
Polymethylene Polyphenylene Isocyanate	9016-87-9	Green algae	Analogous Compound	72 hours	No tox obs at lmt of water sol	>100 mg/l
Polymethylene Polyphenylene Isocyanate	9016-87-9	Activated sludge	Analogous Compound	3 hours	EC50	>100 mg/l
Talc	14807-96-6		Data not available or insufficient for classification			N/A

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

Diphenylmethane Diisocyanate (MDI)	26447-40-5	Green algae	Estimated	72 hours	EC50	>1,640 mg/l
Diphenylmethane Diisocyanate (MDI)	26447-40-5	Water flea	Estimated	24 hours	EC50	>1,000 mg/l
Diphenylmethane Diisocyanate (MDI)	26447-40-5	Zebra Fish	Estimated	96 hours	LC50	>1,000 mg/l
Diphenylmethane Diisocyanate (MDI)	26447-40-5	Green algae	Estimated	72 hours	NOEL	1,640 mg/l
Diphenylmethane Diisocyanate (MDI)	26447-40-5	Water flea	Estimated	21 days	NOEC	>=10 mg/l
Zeolite	1318-02-1		Analogous Compound	22 days	EC50	364.9 mg/l
Zeolite	1318-02-1	African clawed frog	Analogous Compound	96 hours	LC50	1,800 mg/l
Zeolite	1318-02-1	Fathead minnow	Analogous Compound	96 hours	LC50	>680 mg/l
Zeolite	1318-02-1	Green algae	Analogous Compound	72 hours	EC50	130 mg/l
Zeolite	1318-02-1	Water flea	Analogous Compound	48 hours	EC50	>100 mg/l
Zeolite	1318-02-1	Fathead minnow	Analogous Compound	30 days	NOEC	86.7 mg/l
Zeolite	1318-02-1	Green algae	Analogous Compound	72 hours	NOEC	18 mg/l
Zeolite	1318-02-1	Water flea	Analogous Compound	21 days	NOEC	32 mg/l
Zeolite	1318-02-1	Bacteria	Experimental	16 hours	EC50	950 mg/l
Zeolite	1318-02-1	Radish	Experimental	23 days	EC50	4,000 mg/kg (Dry Weight)

**12.2. Persistence and degradability**

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Urethane Prepolymer - NJTS Reg. No. 04499600-5770P	Trade Secret	Data not available-insufficient	N/A	N/A	N/A	N/A
P,P'-Methylenebis(p henyl isocyanate)	101-68-8	Analogous Compound Hydrolysis		Hydrolytic half-life	<2 hours (t 1/2)	
Polymethylene Polyphenylene	9016-87-9	Analogous Compound	28 days	BOD	0 %BOD/ThO D	OECD 302C - Modified MITI (II)

Isocyanate		Aquatic Inherent Biodegrad.				
Polymethylene Polyphenylene Isocyanate	9016-87-9	Analogous Compound Hydrolysis		Hydrolytic half-life	20 hours (t 1/2)	
Talc	14807-96-6	Data not available-insufficient	N/A	N/A	N/A	N/A
Diphenylmethane Diisocyanate (MDI)	26447-40-5	Data not available-insufficient	N/A	N/A	N/A	N/A
Zeolite	1318-02-1	Analogous Compound Hydrolysis		Hydrolytic half-life	60 days (t 1/2)	

**12.3 : Bioaccumulative potential**

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Urethane Prepolymer - NJTS Reg. No. 04499600-5770P	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
P,P'-Methylenebis(p henyl isocyanate)	101-68-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Polymethylene Polyphenylene Isocyanate	9016-87-9	Analogous Compound BCF - Fish	28 days	Bioaccumulation factor	200	OECD305-Bioconcentration
Polymethylene Polyphenylene Isocyanate	9016-87-9	Analogous Compound Bioconcentration		Log Kow	4.51	
Talc	14807-96-6	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Diphenylmethane Diisocyanate (MDI)	26447-40-5	Estimated BCF - Fish	28 days	Bioaccumulation factor	200	
Zeolite	1318-02-1	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. 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.

## SECTION 14: Transport Information

### International Regulations

**UN No.:** Not restricted for transport.

**UN Proper shipping name:** Not restricted for transport.

**Transportation Class (IMO):** None assigned

**Transportation Class (IATA):** None assigned

**Other Dangerous Goods Descriptions (IMO):** None assigned

**Other Dangerous Goods Descriptions (IATA):** None assigned

**Packing Group:** None assigned

**Marine pollutant:** None assigned

## SECTION 15: Regulatory information

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

#### Global inventory status

Contact 3M for more information. The components of this material are in compliance with the provisions of the Korea Chemical Control Act. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. This product complies with Measures on Environmental Management of New Chemical Substances. All ingredients are listed on or exempt from on China IECSC inventory. The components of this product are in compliance with the chemical notification requirements of TSCA. All required components of this product are listed on the active portion of the TSCA Inventory.

#### This product may contain component(s) that are regulated by the following:

Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations: this product is subject to SDS, labelling, PEL and other requirements in the Act/Regulations.

Environmental Protection and Management (Hazardous Substances) Regulations: This product is subject to the requirements in the Regulations

## SECTION 16: Other information

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 Singapore SDSs are available at [www.3m.com.sg](http://www.3m.com.sg)**