

Safety Data Sheet

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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)

IDENTIFICATION:

1.1. Product identifier 3M[™] Panel Bonding Adhesive, P.N. 08115 (FG)

Product Identification Numbers 60-9800-3093-0

1.2. Recommended use and restrictions on use

Recommended use

Automotive., Adhesive

For Industrial or Professional use only.

1.3. Supplier's details

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

1.4. Emergency telephone number

Company Emergency Hotline: EMERGENCY: 1800 097 146 (Australia only)

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 SDSs for components of this product are:

09-3599-9, 06-6873-1

One or more components of this KIT is classified as a hazardous chemical according to the Model Work Health and Safety Regulations, 2011.

TRANSPORT INFORMATION

The Components of this KIT have various Dangerous Goods Transportation Classifications. Please refer to the attached component Safety Data Sheets for individual Transportation Classifications.

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.

3M Australia SDSs are available at www.3m.com.au



Safety Data Sheet

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Document group:	09-3599-9	Version number:	4.00
Issue Date:	26/06/2014	Supersedes date:	25/06/2013

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[™] Panel Bonding (90 Minutes) Adhesive PN 08115 - Accelerator

1.2. Recommended use and restrictions on use

Recommended use

Automotive., Use with Part B, MSDS 06-6873-1

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.

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

2.1. Classification of the substance or mixture

Serious Eye Damage/Irritation: Category 1. Skin Corrosion/Irritation: Category 1. Skin Sensitizer: Category 1B. Reproductive Toxicity: Category 1B.

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

Corrosion | Exclamation mark | Health Hazard |

Pictograms



Hazard statements

Causes severe skin burns and eye damage.
May cause an allergic skin reaction.
May damage fertility or the unborn child.

Precautionary statements

General:	
P102	Keep out of reach of children.
P103	Read label before use.
P101	If medical advice is needed, have product container or label at hand.

D

Prevention:	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280D	Wear protective gloves, protective clothing, and eye/face protection.
P281	Use personal protective equipment as required.
P264	Wash thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
Response:	
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

lenses, if present and easy to do. Continue rinsing.

Wash contaminated clothing before reuse.

Immediately call a POISON CENTRE or doctor/physician.

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

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF exposed or concerned: Get medical advice/attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

P305 + P351 + P338

P310 P333 + P313 P363 P301 + P330 + P331 P308 + P313

Storage: P405

Store locked up.

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 amines may develop a cross-sensitisation reaction to certain other amines. - May cause chemical gastrointestinal burns.

2.4. Other hazards which do not result in classification

May be harmful if swallowed. May be harmful in contact with skin.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Weight
Polymeric Diamide	68911-25-1	15 - 40
Butadiene Acrylonitrile Copolymer	68683-29-4	9 - 30
Silica, vitreous	60676-86-0	10 - 30
Bis(3-Aminopropyl) Ether of Diethylene	4246-51-9	7 - 13
Glycol		
Tris(2,4,6-	90-72-2	5 - 10
Dimethylaminomonomethyl)Phenol		
Inorganic Salt	Trade Secret	1 - 5
Amine Epoxy Curing Agent	288-32-4	1 - 5
Dimethyl Siloxane, Reaction Product with	67762-90-7	1 - 5
Silica		
Bis[(Dimethylamino)Methyl]Phenol	71074-89-0	0.1 - 1.5
N-Aminoethylpiperazine	140-31-8	0.1 - 1.5
Toluene	108-88-3	< 0.5

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 flush with large amounts of water for at least 15 minutes. Remove contaminated clothing. Get immediate medical attention. Wash clothing before reuse.

Eye contact

Immediately flush with large amounts of water for at least 15 minutes. Remove contact lenses if easy to do. Continue rinsing. Immediately get medical attention.

If swallowed

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

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

See Section 11.1. Information on toxicological effects.

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. 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

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

5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

Hazchem Code: 2X

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Warning: A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not use in a confined area with minimal air exchange. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Avoid contact with oxidising agents (eg. chlorine, chromic acid etc.) Use personal protective equipment (eg. gloves, respirators...) as required.

7.2. Conditions for safe storage including any incompatibilities

Store away from acids. Store away from oxidising agents.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Toluene	108-88-3	ACGIH	TWA:20 ppm	
Toluene	108-88-3	Australia OELs	TWA(8 hours):191 mg/m3(50	Skin Notation

			ppm);STEL(15 minutes):574	
			mg/ms(150 ppm)	
Toluene	108-88-3	CMRG	STEL:75 ppm	Skin Notation
Silica, vitreous	60676-86-0	Australia OELs	Limit value not established:	
Silicon dioxide	60676-86-0	Australia OELs	TWA(respirable fraction)(8	
			hours):2 mg/m3	
Dimethyl Siloxane, Reaction	67762-90-7	CMRG	CEIL:5 mg/m3	
Product with Silica				
Tris(2,4,6-	90-72-2	CMRG	TWA:5 ppm	
Dimethylaminomonomethyl)Phen				
ol				

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: Short Term Exp

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: Full face shield.

Indirect vented goggles.

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: Polymer laminate

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

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 vapors 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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Viscous liquid
Appearance/Odour	Tan liquid, slight amine odour.
Odour threshold	No data available.
рН	Not applicable.
Melting point/Freezing point	Not applicable.
Boiling point/Initial boiling point/Boiling range	>=110 °C
Flash point	110 °C [Test Method:Closed Cup]
Evaporation rate	<=1 [<i>Ref Std</i> :BUOAC=1]
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	No data available.
Flammable Limits(UEL)	No data available.
Vapour pressure	<=26,664.4 Pa [@ 20 °C]
Vapour density	No data available.
Density	1.2 g/ml
Relative density	1.2 [<i>Ref Std</i> :WATER=1]
Water solubility	No data available.
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	No data available.
Autoignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	100,000 - 225 Pa-s [Test Method:Brookfield]
Hazardous air pollutants	0.33 % weight [<i>Test Method</i> :Calculated]
Volatile organic compounds (VOC)	4 g/l [Test Method:calculated SCAQMD rule 443.1]
Volatile organic compounds (VOC)	0.4 % weight [<i>Test Method</i> :calculated per CARB title 2]
Percent volatile	0.4 % weight
VOC less H2O & exempt solvents	4 g/l [<i>Test Method</i> :calculated SCAQMD rule 443.1]

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. Conditions to avoid None known.

10.4. Possibility of hazardous reactions Hazardous polymerisation will not occur.

10.5 Incompatible materials

Strong oxidising agents.

10.6 Hazardous decomposition products

<u>Substance</u>

None known.

Condition

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. May cause target organ effects after inhalation.

Skin contact

May be harmful in contact with skin.

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

Eye contact

Corrosive (eye burns): Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Ingestion

May be harmful if swallowed.

Gastrointestinal corrosion: Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea; blood in the faeces and/or vomitus may also be seen. May cause target organ effects after ingestion.

Target Organ Effects:

Single exposure may cause:

Methemoglobinemia: Signs/symptoms may include headache, dizziness, nausea, difficulty breathing, and generalised weakness.

Reproductive/Developmental Toxicity:

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

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 ATE2,000 -
_			5,000 mg/kg
Overall product	Ingestion		No data available; calculated ATE2,000 -
			5,000 mg/kg

Silica, vitreous	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silica, vitreous	Inhalation-Dust/Mist	Rat	LC50 > 0.691 mg/l
	(4 hours)		
Silica, vitreous	Ingestion	Rat	LD50 > 5,110 mg/kg
Butadiene Acrylonitrile Copolymer	Dermal	Rabbit	LD50 > 3,000 mg/kg
Butadiene Acrylonitrile Copolymer	Ingestion	Rat	LD50 > 15,300 mg/kg
Bis(3-Aminopropyl) Ether of	Dermal	Rabbit	LD50 2,500 mg/kg
Diethylene Glycol			
Bis(3-Aminopropyl) Ether of	Ingestion	Rat	LD50 3,160 mg/kg
Diethylene Glycol			
Tris(2,4,6-	Dermal	Rat	LD50 1,280 mg/kg
Dimethylaminomonomethyl)Phenol			
Tris(2,4,6-	Ingestion	Rat	LD50 1,000 mg/kg
Dimethylaminomonomethyl)Phenol			
Dimethyl Siloxane, Reaction Product	Dermal	Rabbit	LD50 > 5,000 mg/kg
with Silica			
Dimethyl Siloxane, Reaction Product	Inhalation-Dust/Mist	Rat	LC50 > 0.691 mg/l
with Silica	(4 hours)		
Dimethyl Siloxane, Reaction Product	Ingestion	Rat	LD50 > 5,110 mg/kg
with Silica			
Amine Epoxy Curing Agent	Dermal		LD50 estimated to be 200 - 1,000 mg/kg
Amine Epoxy Curing Agent	Ingestion	Rat	LD50 970 mg/kg
Inorganic Salt	Dermal	Rat	LD50 estimated to be $> 5,000 \text{ mg/kg}$
Inorganic Salt	Ingestion	Rat	LD50 9,285 mg/kg
Bis[(Dimethylamino)Methyl]Phenol	Ingestion		LD50 estimated to be 300 - 2,000 mg/kg
N-Aminoethylpiperazine	Dermal	Rabbit	LD50 865 mg/kg
N-Aminoethylpiperazine	Ingestion	Rat	LD50 1,470 mg/kg
Toluene	Dermal	Rat	LD50 12,000 mg/kg
Toluene	Inhalation-Vapor (4	Rat	LC50 30 mg/l
	hours)		-
Toluene	Ingestion	Rat	LD50 5,550 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Overall product	Rabbit	Corrosive
Polymeric Diamide	Rabbit	Irritant
Silica, vitreous	Rabbit	No significant irritation
Bis(3-Aminopropyl) Ether of Diethylene Glycol	Rabbit	Corrosive
Tris(2,4,6-Dimethylaminomonomethyl)Phenol	Rabbit	Corrosive
Dimethyl Siloxane, Reaction Product with Silica	Rabbit	No significant irritation
N-Aminoethylpiperazine	Rabbit	Corrosive
Toluene	Rabbit	Irritant

Serious Eye Damage/Irritation

Name	Species	Value
Overall product	similar health hazards	Corrosive
Polymeric Diamide	similar health hazards	Corrosive
Silica, vitreous	Rabbit	No significant irritation
Bis(3-Aminopropyl) Ether of Diethylene Glycol	similar health hazards	Corrosive
Tris(2,4,6-Dimethylaminomonomethyl)Phenol	Rabbit	Corrosive
Dimethyl Siloxane, Reaction Product with Silica	Rabbit	No significant irritation
N-Aminoethylpiperazine	Rabbit	Corrosive
Toluene	Rabbit	Moderate irritant

Skin Sensitisation

Name	Species	Value
Overall product	Guinea pig	Sensitising
Polymeric Diamide	Guinea pig	Sensitising

Silica, vitreous	Human and animal	Not sensitizing	
Butadiene Acrylonitrile Copolymer	Guinea pig	Some positive data exist, but the data are not sufficient for classification	
		sufficient for classification	
Tris(2,4,6-Dimethylaminomonomethyl)Phenol	Guinea pig	Some positive data exist, but the data are not	
		sufficient for classification	
Dimethyl Siloxane, Reaction Product with Silica	Human and animal	Not sensitizing	
N-Aminoethylpiperazine	Guinea pig	Sensitising	
Toluene	Guinea pig	Not sensitizing	

Respiratory Sensitisation

	F		
Na	me	Species	Value

Germ Cell Mutagenicity

Name	Route	Value
Silica, vitreous	In Vitro	Not mutagenic
Tris(2,4,6-Dimethylaminomonomethyl)Phenol	In Vitro	Not mutagenic
Dimethyl Siloxane, Reaction Product with Silica	In Vitro	Not mutagenic
N-Aminoethylpiperazine	In vivo	Not mutagenic
N-Aminoethylpiperazine	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Toluene	In Vitro	Not mutagenic
Toluene	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Silica, vitreous	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
Dimethyl Siloxane, Reaction Product with Silica	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
Toluene	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification
Toluene	Ingestion	Rat	Some positive data exist, but the data are not sufficient for classification
Toluene	Inhalation	Mouse	Some positive data exist, but the data are not sufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Silica, vitreous	Ingestion	Not toxic to female	Not toxic to female Rat		1 generation
		reproduction		mg/kg/day	
Silica, vitreous	Inhalation	Not toxic to male	Rat	NOAEL 497	1 generation
		reproduction		mg/kg/day	
Silica, vitreous	Ingestion	Not toxic to	Rat	NOAEL	during organogenesis
		development		1,350	
				mg/kg/day	
Dimethyl Siloxane,	Ingestion	Not toxic to female	Rat	NOAEL 509	1 generation
Reaction Product		reproduction		mg/kg/day	
with Silica					
Dimethyl Siloxane,	Ingestion	Not toxic to male	Rat	NOAEL 497	1 generation
Reaction Product		reproduction		mg/kg/day	
with Silica					
Dimethyl Siloxane,	Ingestion	Not toxic to	Rat	NOAEL	during organogenesis
Reaction Product		development		1,350	
with Silica				mg/kg/day	
N-	Ingestion	Not toxic to female	Rat	NOAEL 598	premating & during
Aminoethylpiperazin		reproduction		mg/kg/day	gestation
e					

N- Aminoethylpiperazin e	Ingestion	Not toxic to male reproduction	Rat	NOAEL 409 mg/kg/day	32 days
N- Aminoethylpiperazin e	Ingestion	Not toxic to development	Rat	NOAEL 899 mg/kg/day	premating & during gestation
Toluene	Inhalation	Some positive female reproductive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure
Toluene	Inhalation	Some positive male reproductive data exist, but the data are not sufficient for classification	Rat	NOAEL 2.3 mg/l	1 generation
Toluene	Ingestion	Toxic to development	Rat	LOAEL 520 mg/kg/day	during gestation
Toluene	Inhalation	Toxic to development	Human	NOAEL Not available	poisoning and/or abuse

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Bis(3- Aminopropyl) Ether of Diethylene Glycol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Tris(2,4,6- Dimethylamin omonomethyl)Phenol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
N- Aminoethylpi perazine	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification		NOAEL Not available	
Toluene	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Toluene	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Toluene	Inhalation	immune system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 0.004 mg/l	3 hours
Toluene	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	poisoning and/or abuse

Specific Target Organ Toxicity - repeated exposure						
Name	Route	Target	Value	Species	Test result	Exposure

Silea vitrousInhalation respiratory system sileations negativeAll data are negativeHuman respiratory availableNoAFI: Not exposure exposureCompatibility availableCompatibility exposureSate system respiratory system sileationRatNOAFI: 125 mg/kg/day28 days availableTrist2,4,6 Dimethylamin omonomethyl JPhenolDermal hanatoporicic system stilcosisadditory system respiratory system stilcosisAll data are negative system stilcosisRatNOAFI: 125 mg/kg/day28 daysTrist2,4,6 Dimethylamin omonomethyl JPhenolDermal hanatoporicic system stilcosisAll data are negativeRatNOAFI: 125 mg/kg/day28 daysSiloane, Reaction Product with Siloane, ReactionInhalationrespiratory system stilcosisAll data are negativeRatNOAFI: 125 mg/kg/day28 daysNo SiloaneIngestionheart endocrine bladderAll data are negativeRatNOAFI: 598 mg/kg/day28 daysTolueneInhalationadditory system system stilcosisCauses damage to reperided exposure reperided exposureNOAFI: 23 mg/kg/day15 monihsTolueneInhalationfeadorine systemCauses damage to respiratoryNOAFI: 113 mg/l15 monihsTolueneInhalationfeadorine systemSome positive data are not sufficient for classificationNOAFI: 113 mg/l15 monihsTolueneInhalationfeadorine systemSome positive 			Organ(s)				Duration
vitreousexposuresystemslopeavailableexposure <td>Silica,</td> <td>Inhalation</td> <td>respiratory</td> <td>All data are</td> <td>Human</td> <td>NOAEL Not</td> <td>occupational</td>	Silica,	Inhalation	respiratory	All data are	Human	NOAEL Not	occupational
Trist2.4.6- DermalDermal nervous systemskin ver nervous systemRatNOAEL 125 mg/kg/day28 daysTrist2.4.6- Dimethylamin omononethyl)PhenolDermal l hematopoietic system isensiticationRatNOAEL 125 mg/kg/day28 daysTrist2.4.6- Dimethylamin omononethyl phenolDermal l hematopoietic system silicosisRatNOAEL Not mg/kg/day28 daysTrist2.4.6- Dimethyl phenolInhalationrespiratory system silicosisAll data are negativeRatNOAEL Not availableoccupational exposureNo Aminoethylip perazineIngestionheart endocrine system liver nervous system i hematopoietic system iver respiratory system iver respiratory system iver prologed or respiratory system iver prologed or respiratory system iver prologed or respiratory system iver system iver system iver system iver system iver system iver system iver system respiratory system iver system iver sudicy iver system iver system	vitreous		system silicosis	negative		available	exposure
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vascular system data are not sufficient for classification data are not sufficient for classification Image: Classification Toluene Ingestion nervous system Some positive data exist, but the data are not Rat NOAEL 625 mg/kg/day 13 weeks			system	data exist, but the		available	exposure
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Index Index Some positive Kat NOAEL 625 13 weeks data exist, but the data are not data are not mg/kg/day 13 weeks	Tolucro	Induction	nomious sustain	classification	Dot	NOAEL 625	12 weeks
data are not	roluene	ingestion	nervous system	data exist but the	rcai	mg/kg/day	15 weeks
				data are not		mg, ng, uu y	

			sufficient for classification			
Toluene	Ingestion	heart	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	liver kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Multiple animal species	NOAEL 2,500 mg/kg/day	13 weeks
Toluene	Ingestion	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 600 mg/kg/day	14 days
Toluene	Ingestion	endocrine system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 105 mg/kg/day	28 days
Toluene	Ingestion	immune system	Some positive data exist, but the data are not sufficient for classification	Mouse	NOAEL 105 mg/kg/day	4 weeks

Aspiration Hazard

Name	Value
Toluene	Aspiration hazard

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	Туре	Exposure	Test endpoint	Test result
Inorganic Salt	Trade Secret	Bluegill	Experimental	96 hours	LC50	2,400 mg/l

Butadiene	68683-29-4		Data not			
Acrylonitrile			available or			
Copolymer			insufficient for			
			classification			
Dimethyl	67762-90-7		Data not			
Siloxane,			available or			
Reaction			insufficient for			
Product with			classification			
Silica						
Bis[(Dimethyla	71074-89-0		Data not			
mino)Methvl1P			available or			
henol			insufficient for			
			classification			
Silica vitreous	60676-86-0	Common Carp	Experimental	72 hours	LC50	$>10000\mathrm{mg/l}$
N-	140-31-8	Green algae	Experimental	72 hours	EC50	>10,000 mg/l
Aminoethylnin	110 51 0	Green algue	Experimental	/2 110015	1050	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
erazine						
N-	140-31-8	Water flea	Experimental	48 hours	EC50	32 mg/l
Aminoethylnin	110 51 0	Water neu	Experimental	10 nouis	1050	52 mg/1
erazine						
N-	140-31-8	Rainbow trout	Experimental	96 hours	LC50	>100 mg/l
Aminoethylnin	140 51 0	Rumoow from	Experimental	50 110013	1000	× 100 mg/1
erazine						
N-	140-31-8	Green algae	Experimental	72 hours	NOEC	31 mg/l
Aminoethylnin	110 51 0	Green algue	Experimental	/2 110015	Role	51 mg/1
erazine						
Tris(2.4.6-	90-72-2	Grass Shrimp	Experimental	96 hours	LC50	718 mg/l
Dimethylamin	, , <u> </u>	orweb onninp	Lip	<i>y</i> 0 110 urb	2000	, 10 1118,1
omonomethyl)						
Phenol						
Tris(2,4,6-	90-72-2	Common Carp	Experimental	96 hours	LC50	175 mg/l
Dimethylamin		1	1			C C
omonomethyl)						
Phenol						
Polymeric	68911-25-1		Data not			
Diamide			available or			
			insufficient for			
			classification			
Amine Epoxy	288-32-4	Green algae	Experimental	72 hours	EC50	133 mg/l
Curing Agent						
Amine Epoxy	288-32-4	Water flea	Experimental	48 hours	EC50	341.5 mg/l
Curing Agent						
Amine Epoxy	288-32-4	Golden Orfe	Experimental	48 hours	LC50	283.6 mg/l
Curing Agent			_			-
Amine Epoxy	288-32-4	Green algae	Experimental	72 hours	NOEC	25 mg/l
Curing Agent						
Toluene	108-88-3	Green Algae	Experimental	72 hours	EC50	12.5 mg/l
Toluene	108-88-3	Water flea	Experimental	48 hours	EC50	3.78 mg/l
Toluene	108-88-3	Coho Salmon	Experimental	96 hours	LC50	5.5 mg/l
Toluene	108-88-3	Sheepshead	Experimental	28 days	NOEC	3.2 mg/l
		Minnow	1	5		C
Bis(3-	4246-51-9	Algae	Experimental	72 hours	EC50	69 mg/l
Aminopropyl)						
Ether of						
Diethylene						

Glycol						
Bis(3-	4246-51-9	Crustacea	Experimental	48 hours	EC50	220 mg/l
Aminopropyl)						
Ether of						
Diethylene						
Glycol						
Bis(3-	4246-51-9	Golden Orfe	Experimental	96 hours	LC50	220 mg/l
Aminopropyl)						
Ether of						
Diethylene						
Glycol						

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Inorganic Salt	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Butadiene Acrylonitrile Copolymer	68683-29-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Dimethyl Siloxane, Reaction Product with Silica	67762-90-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Bis[(Dimethyla mino)Methyl]P henol	71074-89-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Silica, vitreous	60676-86-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
N- Aminoethylpip erazine	140-31-8	Experimental Biodegradation	28 days	BOD	0 % weight	OECD 301C - MITI test (I)
Tris(2,4,6- Dimethylamin omonomethyl) Phenol	90-72-2	Experimental Biodegradation	28 days	BOD	4 % weight	OECD 301D - Closed bottle test
Polymeric Diamide	68911-25-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Amine Epoxy Curing Agent	288-32-4	Experimental Biodegradation	18 days	Dissolv. Organic Carbon Deplet	98 % weight	OECD 301A - DOC Die Away Test
Toluene	108-88-3	Experimental Photolysis		Photolytic half- life (in air)	5.38 days (t 1/2)	Other methods
Toluene	108-88-3	Experimental Biodegradation	14 days	BOD	100 % weight	OECD 301C - MITI test (I)
Bis(3-	4246-51-9	Estimated	28 days	BOD	12.6 % weight	OECD 301C - MITI

Aminopropyl)	Bio	degradation		test (I)
Ether of				
Diethylene				
Glycol				

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Inorganic Salt	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Butadiene Acrylonitrile Copolymer	68683-29-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Dimethyl Siloxane, Reaction Product with Silica	67762-90-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Bis[(Dimethyla mino)Methyl]P henol	71074-89-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Silica, vitreous	60676-86-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
N- Aminoethylpip erazine	140-31-8	Experimental Bioconcentrati on		Log Kow	0.3	Other methods
Tris(2,4,6- Dimethylamin omonomethyl) Phenol	90-72-2	Experimental Bioconcentrati on		Log Kow	-0.66	Other methods
Polymeric Diamide	68911-25-1	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Amine Epoxy Curing Agent	288-32-4	Experimental Bioconcentrati on		Log Kow	-0.08	Other methods
Toluene	108-88-3	Experimental Bioconcentrati on		Log Kow	2.73	Other methods
Bis(3- Aminopropyl) Ether of Diethylene Glycol	4246-51-9	Estimated Bioconcentrati on		Log Kow	-1.46	Other methods

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.

SECTION 14: Transport Information

Australian Dangerous Goods Code (ADG) - Road/Rail Transport UN No.: UN3267 Proper shipping name: Corrosive Liquid, Basic, Organic, n.o.s., (BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL AND BIS((DIMETHYLAMINO)METHYL)PHENOL) Class/Division: 8 Sub Risk: Not applicable. Packing Group: II

Hazchem Code: 2X IERG: 37

International Air Transport Association (IATA) - Air Transport UN No.: UN3267 Proper shipping name: Corrosive Liquid, Basic, Organic, n.o.s., (BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL AND BIS((DIMETHYLAMINO)METHYL)PHENOL) Class/Division: 8 Sub Risk: Not applicable. Packing Group: II

International Maritime Dangerous Goods Code (IMDG)- Marine Transport UN No.: UN3267 Proper shipping name: Corrosive Liquid, Basic, Organic, n.o.s., (BIS(3-AMINOPROPYL) ETHER OF DIETHYLENE GLYCOL AND BIS((DIMETHYLAMINO)METHYL)PHENOL) Class/Division: 8 Sub Risk: Not applicable. Packing Group: II 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 Section 21 of the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

Poison Schedule: This product has not been assessed for poisons scheduling as the product is intended for industrial and professional use only.

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.

3M Australia SDSs are available at www.3m.com.au



Safety Data Sheet

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Issue Date:	26/06/2014	Supersedes date:	25/06/2013

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[™] Panel Bonding Adhesive PN 08115 - Base

1.2. Recommended use and restrictions on use

Recommended use

Automotive., Use with Part A, MSDS 09-3599-9

For Industrial or Professional use only.

1.3. Supplier's details

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

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

2.1. Classification of the substance or mixture

Serious Eye Damage/Irritation: Category 2. Skin Sensitizer: Category 1.

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 WARNING!

Symbols Exclamation mark |

Pictograms Hazard statements Causes serious eye irritation. H319 H317 May cause an allergic skin reaction. **Precautionary statements** General: P102 Keep out of reach of children. P103 Read label before use. P101 If medical advice is needed, have product container or label at hand. **Prevention:** Avoid breathing dust/fume/gas/mist/vapours/spray. P261 Wear protective gloves and eye/face protection. P280B P264 Wash thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. **Response:** P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. P302 + P352If skin irritation or rash occurs: Get medical advice/attention. P333 + P313 Wash contaminated clothing before reuse. P363 **Disposal:** P501 Dispose of contents/container in accordance with applicable local/regional/national/international regulations.

2.3. Other assigned/identified product hazards

None known.

2.4. Other hazards which do not result in classification

Causes mild skin irritation. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Weight
4,4'-Isopropyldenediphenol-	25068-38-6	30 - 60
Epichlorohydrin Polymer		
Glass Beads	65997-17-3	10 - 30
1,4-Bis[(2,3-	14228-73-0	7 - 13
Epoxypropoxy)Methyl]Cyclohexane		

Silica, vitreous	60676-86-0	7 - 13
Methyl Methacrylate-Butadiene-Styrene	25053-09-2	5 - 10
Polymer		
Silicon dioxide	7631-86-9	1 - 5
3-(Trimethoxysilyl)Propyl Glycidyl Ether	2530-83-8	0.5 - 1.5
Dimethyl Siloxane, Reaction Product with	67762-90-7	0.5 - 1.5
Silica		
Carbon black	1333-86-4	< 0.5

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

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 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 Aldehydes. Carbon monoxide. Carbon dioxide.

Condition

During combustion. During combustion. During combustion.

5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Warning: A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep out of reach of children. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wash contaminated clothing before reuse. Use personal protective equipment (eg. gloves, respirators...) as required.

7.2. Conditions for safe storage including any incompatibilities

Keep container tightly closed. Store away from heat.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Carbon black	1333-86-4	ACGIH	TWA(inhalable fraction):3	
			mg/m3	
Carbon black	1333-86-4	Australia OELs	TWA(8 hours): 3 mg/m3	
Carbon black	1333-86-4	CMRG	TWA: 0.5 mg/m ³	
3-(Trimethoxysilyl)Propyl	2530-83-8	CMRG	TWA:5 ppm	
Glycidyl Ether				
Silica, vitreous	60676-86-0	Australia OELs	Limit value not established:	
Silicon dioxide	60676-86-0	Australia OELs	TWA(respirable fraction)(8	
			hours):2 mg/m3	
Glass Beads	65997-17-3	Manufacturer	TWA(as dust):10 mg/m3	
		determined		
Dimethyl Siloxane, Reaction	67762-90-7	CMRG	CEIL:5 mg/m3	
Product with Silica				
Silicon dioxide	7631-86-9	Australia OELs	TWA(respirable fraction)(8	
			hours):2 mg/m3	
Silicon dioxide	7631-86-9	CMRG	TWA(as respirable dust):3	
			mg/m3	
Silica gel, pptd., crystfree	7631-86-9	Australia OELs	TWA(Inspirable fraction)(8	

Synthetic amorphous silica	hours):10 mg/m3
(silicon dioxide) is produced by a	
wet process by reacting an	
aqueous alkali metal silicate	
solution and a mineral acid. An	
extensive hydrated silica	
structure, or "gel" is formed	
which is	

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

8.2. Exposure controls

8.2.1. Engineering controls

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

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Indirect vented goggles.

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: Polymer laminate

f 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

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 vapors 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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical prope	erties			
Physical state	Liquid.			
Specific Physical Form:	Viscous.			
Appearance/Odour	Black, Viscous liquid.			
Odour threshold	No data available.			
рН	Not applicable.			
Melting point/Freezing point	Not applicable.			
Boiling point/Initial boiling point/Boiling range	>=35 °C			
Flash point	> 104 °C [<i>Test Method</i> :Closed Cup]			
Evaporation rate	<1 [<i>Ref Std</i> :BUOAC=1]			
Flammability (solid, gas)	Not applicable.			
Flammable Limits(LEL)	No data available.			
Flammable Limits(UEL)	No data available.			
Vapour pressure	< 666.6 Pa [@ 20 °C]			
Vapour density	No data available.			
Density	1.2 g/ml			
Relative density	± 1.2 [<i>Ref Std</i> :WATER=1]			
Water solubility	Negligible			
Solubility- non-water	No data available.			
Partition coefficient: n-octanol/water	No data available.			
Autoignition temperature	No data available.			
Decomposition temperature	No data available.			
Viscosity	100,000 - 225 Pa-s [Test Method:Brookfield]			
Hazardous air pollutants	0.000009 lb HAPS/lb solids [Test Method:Calculated]			
Volatile organic compounds (VOC)	18 g/l [Test Method:calculated SCAQMD rule 443.1]			
Volatile organic compounds (VOC)	1.5 % weight [Test Method:calculated per CARB title 2]			
Percent volatile	1.5 % weight			
VOC less H2O & exempt solvents	18 g/l [Test Method:calculated SCAQMD rule 443.1]			
Solids content	38.9 % weight			

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. Conditions to avoid

Sparks and/or flames.

10.4. Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

<u>Substance</u>

None known.

Condition

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

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

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.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

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
4,4'-Isopropyldenediphenol-	Dermal	Rat	LD50 > 1,600 mg/kg
Epichlorohydrin Polymer			
4,4'-Isopropyldenediphenol-	Ingestion	Rat	LD50 > 1,000 mg/kg
Epichlorohydrin Polymer			
Glass Beads	Dermal		LD50 estimated to be $> 5,000 \text{ mg/kg}$
Glass Beads	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
1,4-Bis[(2,3-	Dermal	Rabbit	LD50 2,500 mg/kg
Epoxypropoxy)Methyl]Cyclohexane			
Silica, vitreous	Dermal	Rabbit	LD50 > 5,000 mg/kg
1,4-Bis[(2,3-	Ingestion	Rat	LD50 2,450 mg/kg
Epoxypropoxy)Methyl]Cyclohexane			
Silica, vitreous	Inhalation-Dust/Mist	Rat	LC50 > 0.691 mg/l
	(4 hours)		

Silica, vitreous	Ingestion	Rat	LD50 > 5,110 mg/kg
Methyl Methacrylate-Butadiene-	Dermal	Rabbit	LD50 > 5,000 mg/kg
Styrene Polymer			
Methyl Methacrylate-Butadiene-	Ingestion	Rat	LD50 > 5,000 mg/kg
Styrene Polymer			
Silicon dioxide	Dermal	Rabbit	LD50 > 5,000 mg/kg
Silicon dioxide	Inhalation-Dust/Mist	Rat	LC50 > 0.691 mg/l
	(4 hours)		
Silicon dioxide	Ingestion	Rat	LD50 > 5,110 mg/kg
3-(Trimethoxysilyl)Propyl Glycidyl	Dermal	Rabbit	LD50 4,000 mg/kg
Ether			
3-(Trimethoxysilyl)Propyl Glycidyl	Inhalation-Dust/Mist	Rat	LC50 > 5.3 mg/l
Ether	(4 hours)		
3-(Trimethoxysilyl)Propyl Glycidyl	Ingestion	Rat	LD50 7,010 mg/kg
Ether			
Dimethyl Siloxane, Reaction Product	Dermal	Rabbit	LD50 > 5,000 mg/kg
with Silica			
Dimethyl Siloxane, Reaction Product	Inhalation-Dust/Mist	Rat	LC50 > 0.691 mg/l
with Silica	(4 hours)		
Dimethyl Siloxane, Reaction Product	Ingestion	Rat	LD50 > 5,110 mg/kg
with Silica			
Carbon black	Dermal	Rabbit	LD50 > 3,000 mg/kg
Carbon black	Ingestion	Rat	LD50 > 8,000 mg/kg

 $\overline{\text{ATE}}$ = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
4,4'-Isopropyldenediphenol-Epichlorohydrin	Rabbit	Mild irritant
Polymer		
Glass Beads		No significant irritation
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane		Mild irritant
Silica, vitreous	Rabbit	No significant irritation
Methyl Methacrylate-Butadiene-Styrene Polymer		Minimal irritation
Silicon dioxide	Rabbit	No significant irritation
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Rabbit	Mild irritant
Dimethyl Siloxane, Reaction Product with Silica	Rabbit	No significant irritation
Carbon black	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
4,4'-Isopropyldenediphenol-Epichlorohydrin	Rabbit	Moderate irritant
Polymer		
Glass Beads		No significant irritation
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane		Mild irritant
Silica, vitreous	Rabbit	No significant irritation
Methyl Methacrylate-Butadiene-Styrene Polymer		Mild irritant
Silicon dioxide	Rabbit	No significant irritation
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Rabbit	Corrosive
Dimethyl Siloxane, Reaction Product with Silica	Rabbit	No significant irritation
Carbon black	Rabbit	No significant irritation

Skin Sensitisation

Name	Species	Value
4,4'-Isopropyldenediphenol-Epichlorohydrin	Human and animal	Sensitising
Polymer		
1,4-Bis[(2,3-Epoxypropoxy)Methyl]Cyclohexane	similar compounds	Sensitising
Silica, vitreous	Human and animal	Not sensitizing
Silicon dioxide	Human and animal	Not sensitizing
3-(Trimethoxysilyl)Propyl Glycidyl Ether	Guinea pig	Some positive data exist, but the data are not

		sufficient for classification
Dimethyl Siloxane, Reaction Product with Silica	Human and animal	Not sensitizing

Respiratory Sensitisation

Name	Species	Value
4,4'-Isopropyldenediphenol-Epichlorohydrin	Human	Some positive data exist, but the data are not
Polymer		sufficient for classification

Germ Cell Mutagenicity

Name	Route	Value
4,4'-Isopropyldenediphenol-Epichlorohydrin	In vivo	Not mutagenic
Polymer		
4,4'-Isopropyldenediphenol-Epichlorohydrin	In Vitro	Some positive data exist, but the data are not
Polymer		sufficient for classification
Glass Beads	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Silica, vitreous	In Vitro	Not mutagenic
Silicon dioxide	In Vitro	Not mutagenic
3-(Trimethoxysilyl)Propyl Glycidyl Ether	In vivo	Not mutagenic
3-(Trimethoxysilyl)Propyl Glycidyl Ether	In Vitro	Some positive data exist, but the data are not
		sufficient for classification
Dimethyl Siloxane, Reaction Product with Silica	In Vitro	Not mutagenic
Carbon black	In Vitro	Not mutagenic
Carbon black	In vivo	Some positive data exist, but the data are not
		sufficient for classification

Carcinogenicity

Name	Route	Species	Value
4,4'-Isopropyldenediphenol-	Dermal	Mouse	Some positive data exist, but the data
Epichlorohydrin Polymer			are not sufficient for classification
Glass Beads	Inhalation	Multiple animal	Some positive data exist, but the data
		species	are not sufficient for classification
Silica, vitreous	Not specified.	Mouse	Some positive data exist, but the data
			are not sufficient for classification
Silicon dioxide	Not specified.	Mouse	Some positive data exist, but the data
			are not sufficient for classification
3-(Trimethoxysilyl)Propyl Glycidyl	Dermal	Mouse	Not carcinogenic
Ether			
Dimethyl Siloxane, Reaction Product	Not specified.	Mouse	Some positive data exist, but the data
with Silica			are not sufficient for classification
Carbon black	Dermal	Mouse	Not carcinogenic
Carbon black	Ingestion	Mouse	Not carcinogenic
Carbon black	Inhalation	Rat	Carcinogenic.

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
4,4'-	Ingestion	Not toxic to female	Rat	NOAEL 750	2 generation
Isopropyldenediphen		reproduction		mg/kg/day	
ol-Epichlorohydrin					
Polymer					
4,4'-	Ingestion	Not toxic to male	Rat	NOAEL 750	2 generation
Isopropyldenediphen		reproduction		mg/kg/day	
ol-Epichlorohydrin					
Polymer					
4,4'-	Dermal	Not toxic to	Rabbit	NOAEL 300	during organogenesis
Isopropyldenediphen		development		mg/kg/day	
ol-Epichlorohydrin					

Polymer					
4,4'- Isopropyldenediphen ol-Epichlorohydrin	Ingestion	Not toxic to development	Rat	NOAEL 750 mg/kg/day	2 generation
Polymer					
Silica, vitreous	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silica, vitreous	Inhalation	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silica, vitreous	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
Silicon dioxide	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Silicon dioxide	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Silicon dioxide	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
3- (Trimethoxysilyl)Pro pyl Glycidyl Ether	Ingestion	Not toxic to female reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
3- (Trimethoxysilyl)Pro pyl Glycidyl Ether	Ingestion	Not toxic to male reproduction	Rat	NOAEL 1,000 mg/kg/day	1 generation
3- (Trimethoxysilyl)Pro pyl Glycidyl Ether	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 3,000 mg/kg/day	during organogenesis
Dimethyl Siloxane, Reaction Product with Silica	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Dimethyl Siloxane, Reaction Product with Silica	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Dimethyl Siloxane, Reaction Product with Silica	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target	Value	Species	Test result	Exposure
		Organ(s)				Duration
1,4-Bis[(2,3-	Inhalation	respiratory	Some positive		NOAEL Not	
Epoxypropox		irritation	data exist, but the		available	
y)Methyl]Cyc			data are not			
lohexane			sufficient for			
			classification			

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target	Value	Species	Test result	Exposure
		Organ(s)				Duration
4,4'-	Dermal	liver	Some positive	Rat	NOAEL 1,000	2 years
Isopropyldene			data exist, but the		mg/kg/day	
diphenol-			data are not			
Epichlorohydr			sufficient for			
in Polymer			classification			
4,4'-	Dermal	nervous system	All data are	Rat	NOAEL 1,000	13 weeks

Isopropyldene diphenol- Epichlorohydr in Polymer			negative		mg/kg/day	
4,4'- Isopropyldene diphenol- Epichlorohydr in Polymer	Ingestion	auditory system heart endocrine system hematopoietic system liver eyes kidney and/or bladder	All data are negative	Rat	NOAEL 1,000 mg/kg/day	28 days
Glass Beads	Inhalation	respiratory system	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL not available	occupational exposure
Silica, vitreous	Inhalation	respiratory system silicosis	All data are negative	Human	NOAEL Not available	occupational exposure
Silicon dioxide	Inhalation	respiratory system silicosis	All data are negative	Human	NOAEL Not available	occupational exposure
3- (Trimethoxysi lyl)Propyl Glycidyl Ether	Ingestion	heart endocrine system bone, teeth, nails, and/or hair hematopoietic system liver immune system nervous system kidney and/or bladder respiratory system	All data are negative	Rat	NOAEL 1,000 mg/kg/day	28 days
Dimethyl Siloxane, Reaction Product with Silica	Inhalation	respiratory system silicosis	All data are negative	Human	NOAEL Not available	occupational exposure
Carbon black	Inhalation	pneumoconiosis	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	occupational exposure

Aspiration Hazard

Name

Value

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

Chronic aquatic hazard:

GHS Chronic 3: Harmful to aquatic life with long lasting effects.

No product test data available.

Material	CAS Number	Organism	Туре	Exposure	Test endpoint	Test result
Methyl	25053-09-2		Data not			
Methacrylate-			available or			
Butadiene-			insufficient for			
Styrene			classification			
Polymer						
Dimethyl	67762-90-7		Data not			
Siloxane,			available or			
Reaction			insufficient for			
Product with			classification			
Silica						
1,4-Bis[(2,3-	14228-73-0	Water flea	Estimated	48 hours	EC50	22 mg/l
Epoxypropoxy						
)Methyl]Cyclo						
hexane						
1,4-Bis[(2,3-	14228-73-0	Ricefish	Estimated	96 hours	LC50	13 mg/l
Epoxypropoxy						
)Methyl]Cyclo						
hexane						
1,4-Bis[(2,3-	14228-73-0	Green algae	Estimated	72 hours	EC50	>93 mg/l
Epoxypropoxy						
)Methyl]Cyclo						
hexane						
1,4-Bis[(2,3-	14228-73-0	Green algae	Estimated	72 hours	NOEC	29 mg/l
Epoxypropoxy						
)Methyl]Cyclo						
hexane						
Silica, vitreous	60676-86-0	Common Carp	Experimental	72 hours	LC50	>10,000 mg/l
Glass Beads	65997-17-3		Data not			
			available or			
			insufficient for			
			classification			
4,4'-	25068-38-6	Ricefish	Experimental	96 hours	LC50	1.41 mg/l
Isopropyldened						
iphenol-						
Epichlorohydri						
n Polymer					11050	0.0 //
4,4'-	25068-38-6	Water flea	Experimental	21 days	NOEC	0.3 mg/l
Isopropyldened						
iphenol-						
Epichlorohydri						
n Polymer		a 1		2.51		0.50 //
5-	2530-83-8	Green algae	Experimental	96 hours	EC50	350 mg/l
(Irimethoxysil						
yl)Propyl						
Glycidyl Ether						

3-	2530-83-8	Common Carp	Experimental	96 hours	LC50	55 mg/l
(Trimethoxysil						
Glycidyl Ether						
3-	2530-83-8	Water flea	Experimental	48 hours	EC50	473 mg/l
(Trimethoxysil						
yl)Propyl Glygidyl Ether						
3-	2530-83-8	Green algae	Experimental	96 hours	NOEC	130 mg/l
(Trimethoxysil	2000 00 0	Si een uigue		<i>y</i> o no u b		100 11.81
yl)Propyl						
Glycidyl Ether						
3-	2530-83-8	Water flea	Experimental	21 days	NOEC	>=100 mg/l
(Trimethoxysil						
yl)Propyl						
	7(21.06.0					
Silicon dioxide	/631-86-9		Data not			
			insufficient for			
			classification			
Carbon black	1333-86-4		Data not			
			available or			
			insufficient for			
			classification			

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Methyl	25053-09-2	Data not	N/A	N/A	N/A	N/A
Methacrylate-		available or				
Butadiene-		insufficient for				
Styrene		classification				
Polymer						
Dimethyl	67762-90-7	Data not	N/A	N/A	N/A	N/A
Siloxane,		available or				
Reaction		insufficient for				
Product with		classification				
Silica						
1,4-Bis[(2,3-	14228-73-0	Estimated		Hydrolytic	7 days (t 1/2)	Other methods
Epoxypropoxy		Hydrolysis		half-life		
)Methyl]Cyclo						
hexane						
1,4-Bis[(2,3-	14228-73-0	Estimated	28 days	BOD	4 % weight	OECD 301C - MITI
Epoxypropoxy		Biodegradation				test (I)
)Methyl]Cyclo						
hexane						
Silica, vitreous	60676-86-0	Data not	N/A	N/A	N/A	N/A
		available or				
		insufficient for				
		classification				
Glass Beads	65997-17-3	Data not	N/A	N/A	N/A	N/A
		available or				
		insufficient for				
		classification				
4,4'-	25068-38-6	Laboratory		Hydrolytic	<2 days (t 1/2)	Other methods

Isopropyldened iphenol- Epichlorohydri		Hydrolysis		half-life		
4,4'- Isopropyldened iphenol- Epichlorohydri n Polymer	25068-38-6	Laboratory Biodegradation	28 days	BOD	0 % weight	OECD 301C - MITI test (I)
3- (Trimethoxysil yl)Propyl Glycidyl Ether	2530-83-8	Experimental Hydrolysis		Hydrolytic half-life	6.5 hours (t 1/2)	Other methods
3- (Trimethoxysil yl)Propyl Glycidyl Ether	2530-83-8	Experimental Biodegradation	28 days	Dissolv. Organic Carbon Deplet	37 % weight	Other methods
Silicon dioxide	7631-86-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Carbon black	1333-86-4	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Methyl Methacrylate- Butadiene- Styrene	25053-09-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Dimethyl Siloxane, Reaction Product with Silica	67762-90-7	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
1,4-Bis[(2,3- Epoxypropoxy)Methyl]Cyclo hexane	14228-73-0	Estimated BCF - Other		Bioaccumulati on factor	3	Estimated: Bioconcentration factor
Silica, vitreous	60676-86-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Glass Beads	65997-17-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
4,4'- Isopropyldened iphenol- Epichlorohydri	25068-38-6	Laboratory BCF - Other	28 days	Bioaccumulati on factor	<42	Other methods

n Polymer						
3- (Trimethoxysil yl)Propyl Glycidyl Ether	2530-83-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Silicon dioxide	7631-86-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Carbon black	1333-86-4	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.

Incinerate uncured product in a permitted waste incineration facility. 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. If no other disposal options are available, waste product that has been completely cured or polymerized may be placed in a landfill properly designed for industrial waste. Combustion products will include halogen acid (HCl/HF/HBr). Facility must be capable of handling halogenated materials.

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:

The chemical components contained within this product are listed on the Australian Inventory of Chemical Substances and are in compliance with the requirements of the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

Poison Schedule: This product has not been assessed for poisons scheduling as the product is intended for industrial and professional use only.

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.

3M Australia SDSs are available at www.3m.com.au