

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[™] Scotch-Weld[™] Metal Bonder Acrylic Adhesive 8407NS, Gray, Kit

 Product Identification
 Numbers

 62-2853-1446-4
 62-2853-3631-9

1.2. Recommended use and restrictions on use

Recommended use

Adhesive

For Industrial or Professional use only.

1.3. Supplier's details

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

1.4. Emergency telephone number

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:

39-2537-7, 39-2505-4

One or more components of this KIT is classified as a hazardous chemical according to the Model Work Health and Safety Regulations, 2011, in accordance with applicable State and Territory legislation.

TRANSPORT INFORMATION

The Dangerous Goods Classification for the complete Kit is provided below.

UN No.: UN1133 Proper shipping name: ADHESIVES Class/Division: 3 Packing Group: II Marine Pollutant:Not applicable.

Hazchem Code: -3YE IERG: 14

Australian Dangerous Goods Code (ADG) - Road/Rail Transport Special Instructions: Limited quantity may apply

International Maritime Dangerous Goods Code (IMDG)- Marine Transport Special Instructions:Limited quantity may apply

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

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

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



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)

SECTION 1: Identification

1.1. Product identifier

3M[™] Scotch-Weld[™] Metal Bonder Acrylic Adhesive DP8407NS, Gray, Part A

1.2. Recommended use and restrictions on use

Recommended use

Adhesive, acrylic adhesive

For Industrial or Professional use only.

1.3. Supplier's details

3M Australia - Building A, 1 Rivett Road, North Ryde NSW 2113
136 136
productinfo.au@mmm.com
www.3m.com.au

1.4. Emergency telephone number

EMERGENCY: 1800 097 146 (Australia only)

SECTION 2: Hazard identification

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

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

2.1. Classification of the substance or mixture

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	
H319	
H317	

Causes serious eye irritation. May cause an allergic skin reaction.

Precautionary statements

Prevention: P261 Avoid breathing dust/fume/gas/mist/vapours/spray. Wash thoroughly after handling. P264 P272 Contaminated work clothing should not be allowed out of the workplace. **Response:** P302 + P352IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact P305 + P351 + P338lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical advice/attention. P333 + P313P337 + P313IF eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. P362 + P364

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

May be harmful if swallowed. Causes mild skin irritation. Toxic to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Weight	
Dibenzoate Propanol	27138-31-4	40 - 60	
Epoxy Resin	25068-38-6	15 - 30	
Catalyst.	Trade Secret	10 - 15	
Organic Peroxide	13122-18-4	1 - 10	
Fillers	Trade Secret	1 - 10	
Non-hazardous ingredients	Trade Secret	1 - 10	
Acetone	67-64-1	< 2	

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

Allergic skin reaction (redness, swelling, blistering, and itching).

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

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance	Condition
Aldehydes.	During combustion.
Carbon monoxide.	During combustion.
Carbon dioxide.	During combustion.
Hydrogen Chloride	During combustion.

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. 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.

Hazchem Code: •3Z

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. 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 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 away from heat. 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.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Acetone	67-64-1	ACGIH	TWA:250 ppm;STEL:500 ppm	A4: Not class. as human
				carcin
Acetone	67-64-1	Australia OELs	TWA(8 hours):1185	
			mg/m3(500 ppm);STEL(15	
			minutes):2375 mg/m3(1000	
			ppm)	

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

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

CMRG : Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

Sen: Sensitiser

Sk: Absorption through the skin may be a significant source of exposure.

8.2. Exposure controls

8.2.1. Engineering controls

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

8.2.2. Personal protective equipment (PPE)

Eye/face protection

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

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. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity. Gloves made from the following material(s) are recommended: Polymer laminate

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

Select and use gloves according to AS/NZ 2161.

Respiratory protection

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

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

For questions about suitability for a specific application, consult with your respirator manufacturer. Select and use respirators according to AS/NZS 1715. Respirators should comply with AS/NZS 1716 performance specifications. For information about respirators, call 3M on 1800 024 464.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Paste
Colour	Grey
Odour	Ester
Odour threshold	No data available.
рН	Not applicable.
Melting point/Freezing point	Not applicable.
Boiling point/Initial boiling point/Boiling range	>= 65.6 °C
Flash point> 93.3 °C[Test Method:Closed Cup]	
Evaporation rate <i>No data available.</i>	
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	No data available.
Flammable Limits(UEL)	No data available.
Vapour pressure	No data available.
Vapor Density and/or Relative Vapor Density	No data available.
Density 1.08 g/ml	
Relative density	1.08 [<i>Ref Std</i> :WATER=1]
Water solubility	Nil

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/Kinematic Viscosity	20,000 mPa-s
Volatile organic compounds (VOC)	No data available.
Percent volatile	No data available.
VOC less H2O & exempt solvents	20.2 g/l [Details: when used as intended with Part B]

Nanoparticles

This material contains nanoparticles.

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable.

10.3. Conditions to avoid

Heat. Sparks and/or flames.

10.4. Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.5 Incompatible materials

Amines. Strong acids. Strong bases. Strong oxidising agents.

10.6 Hazardous decomposition products

<u>Substance</u>

None known.

SECTION 11: Toxicological information

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

11.1 Information on Toxicological effects

Signs and Symptoms of Exposure

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

Inhalation

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

Condition

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

May be harmful if swallowed.

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 >2,000 -
-	-		≤5,000 mg/kg
Dibenzoate Propanol	Dermal	Rat	LD50 > 2,000 mg/kg
Dibenzoate Propanol	Inhalation-Dust/Mist	Rat	LC50 > 200 mg/l
-	(4 hours)		
Dibenzoate Propanol	Ingestion	Rat	LD50 3,295 mg/kg
Epoxy Resin	Dermal	Rat	LD50 > 1,600 mg/kg
Epoxy Resin	Ingestion	Rat	LD50 > 1,000 mg/kg
Catalyst.	Dermal	Professional	LD50 estimated to be 2,000 - 5,000 mg/kg
-		judgement	
Catalyst.	Ingestion	Rat	LD50 > 2,000 mg/kg
Organic Peroxide	Dermal	Rat	LD50 > 2,000 mg/kg
Organic Peroxide	Inhalation-Dust/Mist	Rat	LC50 > 0.8 mg/l
	(4 hours)		
Organic Peroxide	Ingestion	Rat	LD50 12,905 mg/kg
Fillers	Dermal	Rabbit	LD50 > 5,000 mg/kg
Fillers	Inhalation-Dust/Mist	Rat	LC50 > 0.691 mg/l
	(4 hours)		
Fillers	Ingestion	Rat	LD50 > 5,110 mg/kg
Acetone	Dermal	Rabbit	LD50 > 15,688 mg/kg
Acetone	Inhalation-Vapour (4	Rat	LC50 76 mg/l
	hours)		
Acetone	Ingestion	Rat	LD50 5,800 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Dibenzoate Propanol	Rabbit	No significant irritation
Epoxy Resin	Rabbit	Mild irritant
Organic Peroxide	Rabbit	No significant irritation
Fillers	Rabbit	No significant irritation
Acetone	Mouse	Minimal irritation

Serious Eye Damage/Irritation					
Name	Species	Value			

Dibenzoate Propanol	Rabbit	No significant irritation
Epoxy Resin	Rabbit	Moderate irritant
Organic Peroxide	Rabbit	No significant irritation
Fillers	Rabbit	No significant irritation
Acetone	Rabbit	Severe irritant

Skin Sensitisation

Name	Species	Value
Dibenzoate Propanol	Guinea pig	Not classified
Epoxy Resin	Human and animal	Sensitising
Catalyst.	Mouse	Not classified
Organic Peroxide	Guinea pig	Sensitising
Fillers	Human and animal	Not classified

Respiratory Sensitisation

Name	Species	Value
Epoxy Resin	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
Dibenzoate Propanol	In Vitro	Not mutagenic
Epoxy Resin	In vivo	Not mutagenic
Epoxy Resin	In Vitro	Some positive data exist, but the data are not sufficient for classification
Catalyst.	In Vitro	Not mutagenic
Fillers	In Vitro	Not mutagenic
Acetone	In vivo	Not mutagenic
Acetone	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Epoxy Resin	Dermal	Mouse	Some positive data exist, but the data
			are not sufficient for classification
Fillers	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
Acetone	Not specified.	Multiple animal	Not carcinogenic
		species	

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Dibenzoate Propanol	Ingestion	Not classified for	Rat	NOAEL 500	2 generation
-		female reproduction		mg/kg/day	
Dibenzoate Propanol	Ingestion	Not classified for	Rat	NOAEL 400	2 generation
		male reproduction		mg/kg/day	
Dibenzoate Propanol	Ingestion	Not classified for	Rat	NOAEL	during gestation
		development		1,000	
				mg/kg/day	
Epoxy Resin	Ingestion	Not classified for	Rat	NOAEL 750	2 generation
		female reproduction		mg/kg/day	
		Not classified for	Rat	NOAEL 750	2 generation

		male reproduction		mg/kg/day	
Epoxy Resin	Dermal	Not classified for	Rabbit	NOAEL 300	during
		development		mg/kg/day	organogenesis
Epoxy Resin	Ingestion	Not classified for	Rat	NOAEL 750	2 generation
		development		mg/kg/day	
Fillers	Ingestion	Not classified for	Rat	NOAEL 509	1 generation
		female reproduction		mg/kg/day	
Fillers	Ingestion	Not classified for	Rat	NOAEL 497	1 generation
		male reproduction		mg/kg/day	
Fillers	Ingestion	Not classified for	Rat	NOAEL	during
		development		1,350	organogenesis
				mg/kg/day	
Acetone	Ingestion	Not classified for	Rat	NOAEL	13 weeks
		male reproduction		1,700	
				mg/kg/day	
Acetone	Inhalation	Not classified for	Rat	NOAEL 5.2	during
		development		mg/l	organogenesis

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Catalyst.	Ingestion	nervous system	Not classified	Rat	NOAEL 2,000 mg/kg	
Acetone	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	NOAEL Not available	
Acetone	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	NOAEL Not available	
Acetone	Inhalation	immune system	Not classified	Human	NOAEL 1.19 mg/l	6 hours
Acetone	Inhalation	liver	Not classified	Guinea pig	NOAEL Not available	
Acetone	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 Organ(s)	Value	Species	Test result	Exposure Duration
Dibenzoate Propanol	Ingestion	hematopoietic system liver	Not classified	Rat	NOAEL 2,500 mg/kg/day	90 days
Epoxy Resin	Dermal	liver	Not classified	Rat	NOAEL 1,000 mg/kg/day	2 years
Epoxy Resin	Dermal	nervous system	Not classified	Rat	NOAEL 1,000 mg/kg/day	13 weeks
Epoxy Resin	Ingestion	auditory system heart endocrine system hematopoietic system liver eyes kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	28 days
Fillers	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure

Acetone	Dermal	eyes	Not classified	Guinea pig	NOAEL Not available	3 weeks
Acetone	Inhalation	hematopoietic system	Not classified	Human	NOAEL 3 mg/l	6 weeks
Acetone	Inhalation	immune system	Not classified	Human	NOAEL 1.19 mg/l	6 days
Acetone	Inhalation	kidney and/or bladder	Not classified	Guinea pig	NOAEL 119 mg/l	not available
Acetone	Inhalation	heart liver	Not classified	Rat	NOAEL 45 mg/l	8 weeks
Acetone	Ingestion	kidney and/or bladder	Not classified	Rat	NOAEL 900 mg/kg/day	13 weeks
Acetone	Ingestion	heart	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	hematopoietic system	Not classified	Rat	NOAEL 200 mg/kg/day	13 weeks
Acetone	Ingestion	liver	Not classified	Mouse	NOAEL 3,896 mg/kg/day	14 days
Acetone	Ingestion	eyes	Not classified	Rat	NOAEL 3,400 mg/kg/day	13 weeks
Acetone	Ingestion	respiratory system	Not classified	Rat	NOAEL 2,500 mg/kg/day	13 weeks
Acetone	Ingestion	muscles	Not classified	Rat	NOAEL 2,500 mg/kg	13 weeks
Acetone	Ingestion	skin bone, teeth, nails, and/or hair	Not classified	Mouse	NOAEL 11,298 mg/kg/day	13 weeks

Aspiration Hazard

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

Exposure Levels

Refer Section 8.1 Control Parameters of this Safety Data Sheet.

Interactive Effects

Not determined.

SECTION 12: Ecological information

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

12.1. Toxicity

Acute aquatic hazard: GHS Acute 2: Toxic to aquatic life.

Chronic aquatic hazard:

GHS Chronic 2: Toxic to aquatic life with long lasting effects.

No product test data available.

Material	CAS Number	Organism	Туре	Exposure	Test endpoint	Test result
Dibenzoate	27138-31-4	Fathead	Experimental	96 hours	LC50	3.7 mg/l
Propanol		minnow				

Dibenzoate Propanol	27138-31-4	Green Algae	Experimental	72 hours	EL50	4.9 mg/l
Dibenzoate Propanol	27138-31-4	Water flea	Experimental	48 hours	EL50	19.31 mg/l
Dibenzoate Propanol	27138-31-4	Green Algae	Experimental	72 hours	EC10	0.89 mg/l
Epoxy Resin	25068-38-6	Activated sludge	Estimated	3 hours	IC50	>100 mg/l
Epoxy Resin	25068-38-6	Green Algae	Estimated	72 hours	EC50	>11 mg/l
Epoxy Resin	25068-38-6	Rainbow trout	Estimated	96 hours	LC50	2 mg/l
Epoxy Resin	25068-38-6	Water flea	Estimated	48 hours	EC50	1.8 mg/l
Epoxy Resin	25068-38-6	Green Algae	Estimated	72 hours	NOEC	4.2 mg/l
Epoxy Resin	25068-38-6	Water flea	Estimated	21 days	NOEC	0.3 mg/l
Catalyst.	Trade Secret		Data not available or insufficient for classification			N/A
Fillers	Trade Secret		Data not available or insufficient for classification			N/A
Organic	13122-18-4	Activated	Experimental	3 hours	NOEC	26.3 mg/l
Peroxide		sludge	_			
Organic Peroxide	13122-18-4	Green Algae	Experimental		EC50	0.51 mg/l
Organic Peroxide	13122-18-4	Rainbow trout	Experimental		LC50	7 mg/l
Organic Peroxide	13122-18-4	Water flea	Experimental		EC50	>100 mg/l
Organic Peroxide	13122-18-4	Green Algae	Experimental		NOEC	0.125 mg/l
Acetone	67-64-1	Algae other	Experimental	96 hours	EC50	11,493 mg/l
Acetone	67-64-1	Crustecea other	Experimental	24 hours	LC50	2,100 mg/l
Acetone	67-64-1	Rainbow trout	Experimental	96 hours	LC50	5,540 mg/l
Acetone	67-64-1	Water flea	Experimental	21 days	NOEC	1,000 mg/l
Acetone	67-64-1	Bacteria	Experimental	16 hours	NOEC	1,700 mg/l
Acetone	67-64-1	Redworm	Experimental	48 hours	LC50	>100

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Dibenzoate	27138-31-4	Experimental	28 days	CO2 evolution	85 % weight	OECD 301B - Modified
Propanol		Biodegradation				sturm or CO2
Epoxy Resin	25068-38-6	Estimated		Hydrolytic	117 hours (t	Non-standard method
		Hydrolysis		half-life	1/2)	
Epoxy Resin	25068-38-6	Estimated	28 days	BOD	5 %BOD/COD	OECD 301F -
		Biodegradation				Manometric
						respirometry
Catalyst.	Trade Secret	Estimated		Photolytic half-	1.48 days (t	Non-standard method
		Photolysis		life (in air)	1/2)	
Catalyst.	Trade Secret	Experimental	28 days	CO2 evolution	29.1 %CO2	OECD 301B - Modified
		Biodegradation			evolution/THC	sturm or CO2
					O2 evolution	
Fillers	Trade Secret	Data not			N/A	

		available- insufficient				
Organic	13122-18-4	Estimated	28	BOD	14 %	OECD 301C - MITI
Peroxide		Biodegradation			BOD/ThBOD	test (I)
Acetone	67-64-1	Experimental			147 days (t 1/2)	
		Photolysis		life (in air)		
Acetone	67-64-1	Experimental	28 days	BOD	78 %	OECD 301D - Closed
		Biodegradation			BOD/ThBOD	bottle test

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Dibenzoate Propanol	27138-31-4	Estimated Bioconcentrati on		Bioaccumulatio n factor	8	Estimated: Bioconcentration factor
Epoxy Resin	25068-38-6	Estimated Bioconcentrati on		Log Kow	3.242	Non-standard method
Catalyst.	Trade Secret	Experimental Bioconcentrati on		Log Kow	2.57	Non-standard method
Fillers	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Organic Peroxide	13122-18-4	Estimated Bioconcentrati on		Bioaccumulatio n factor	363	Estimated: Bioconcentration factor
Acetone	67-64-1	Experimental BCF - Other		Bioaccumulatio n factor	0.65	
Acetone	67-64-1	Experimental Bioconcentrati on		Log Kow	-0.24	

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. 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.: UN3082 Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. , (Epoxy Resin) Class/Division: 9 Sub Risk: Not applicable. Packing Group: III Special Instructions: Not restricted, environmentally hazardous substance exception. Hazchem Code: •3Z IERG: 47

International Air Transport Association (IATA) - Air Transport UN No.: UN3082 Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (Epoxy Resin) Class/Division: 9 Sub Risk: Not applicable. Packing Group: III Special Instructions: Not restricted, as per Special Provision A197, environmentally hazardous substance exception.

International Maritime Dangerous Goods Code (IMDG)- Marine Transport UN No.: UN3082 Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. , (Epoxy Resin) Class/Division: 9 Sub Risk: Not applicable. Packing Group: III Marine Pollutant: Epoxy Resin Special Instructions: Not restricted, as per IMDG code 2.10.2.7, marine pollutant exception.

SECTION 15: Regulatory information

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

Australian Inventory Status:

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

SECTION 16: Other information

Revision information:

Complete document review.

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

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

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



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)

SECTION 1: Identification

1.1. Product identifier

3M[™] Scotch-Weld[™] Metal Bonder Acrylic Adhesive DP8407NS, Gray, Part B

1.2. Recommended use and restrictions on use

Recommended use

Adhesive, Professional

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
E Mail:	productinfo.au@mmm.com

1.4. Emergency telephone number

EMERGENCY: 1800 097 146 (Australia only)

SECTION 2: Hazard identification

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

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

2.1. Classification of the substance or mixture

Flammable Liquid: Category 2. Serious Eye Damage/Irritation: Category 2. Skin Sensitizer: Category 1. Reproductive Toxicity: Category 1. Specific Target Organ Toxicity (repeated exposure): Category 1. Specific Target Organ Toxicity (single exposure): Category 3

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

Flame |Exclamation mark |Health Hazard |

Pictograms



Hazard statements	
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H360	May damage fertility or the unborn child.
H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure: sensory organs.
Precautionary statements	

Prevention:	
P201 Obtain special instructions before use.	
P202 Do not handle until all safety precautions have been read and und	lerstood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other	
No smoking.	
P233 Keep container tightly closed.	
P240 Ground and bond container and receiving equipment.	
P241 Use explosion-proof electrical, ventilating and lighting equipmen	t.
P242 Use non-sparking tools.	
P243 Take action to prevent static discharges.	
P260 Do not breathe dust/fume/gas/mist/vapours/spray.	
P264 Wash thoroughly after handling.	
P270 Do not eat, drink or smoke when using this product.	
P271 Use only outdoors or in a well-ventilated area.	
P272 Contaminated work clothing should not be allowed out of the work	rkplace.
P280F Wear respiratory protection.	
Response:	
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clowith water or shower.	othing. Rinse skin
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable	for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.	Remove contact
lenses, if present and easy to do. Continue rinsing.	
P308 + P313 IF exposed or concerned: Get medical advice/attention.	
P312 Call a POISON CENTRE or doctor/physician if you feel unwell.	
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.	
P337 + P313 IF eye irritation persists: Get medical advice/attention.	
P362 + P364 Take off contaminated clothing and wash it before reuse.	

P370 + P378	In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.
Storage: P403 + P235 P405	Store in a well-ventilated place. Keep cool. 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

None known.

2.4. Other hazards which do not result in classification

Causes mild skin irritation. May be harmful if inhaled. Harmful to aquatic life.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Weight	
Methyl Methacrylate	80-62-6	45 - 65	
Acrylonitrile-Butadiene Polymers	Trade Secret	10 - 30	
2-hydroxyethyl methacrylate	868-77-9	1 - 10	
Fillers	Trade Secret	1 - 10	
Barium diboron tetraoxide	13701-59-2	0.1 - 5	
Hydrotreated light paraffinic distillates	64742-55-8	0.1 - 5	
(petroleum)			
Hydroxypropyl Methacrylate	27813-02-1	0.1 - 5	
Urethane acrylate oligomer	Trade Secret	0.1 - 5	
Polyolmethacrylate Phosphate Esters	95175-93-2	< 3	
Copper Naphthenates	1338-02-9	< 0.2	

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 skin

reaction (redness, swelling, blistering, and itching). Target organ effects following prolonged or repeated exposure. See Section 11 for additional details.

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

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

5.3. Special protective actions for fire-fighters

Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture. 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.

Hazchem Code: •3YE

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. 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. 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. Cover spill area with a fire-extinguishing foam. 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 using non-sparking tools. Place in a metal 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. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Take precautionary measures against static discharge. 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.) Wear low static or properly grounded shoes. Use personal protective equipment (eg. gloves, respirators...) as required. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapour accumulation. Ground/bond container and receiving equipment if there is potential for static electricity accumulation during transfer.

7.2. Conditions for safe storage including any incompatibilities

Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. 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.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
COPPER COMPOUNDS	1338-02-9	ACGIH	TWA(as Cu, fume):0.2 mg/m3;TWA(as Cu dust or mist):1 mg/m3	
Barium, soluable compounds	13701-59-2	ACGIH	TWA(as Ba):0.5 mg/m3	A4: Not class. as human carcin
Barium, soluable compounds	13701-59-2	Australia OELs	TWA(as Ba)(8 hours):0.5 mg/m3	
Paraffin oil	64742-55-8	Australia OELs	TWA(as mist)(8 hours):5 mg/m3	
Methyl Methacrylate	80-62-6	ACGIH	TWA:50 ppm;STEL:100 ppm	A4: Not class. as human carcin, Dermal Sensitizer
Methyl Methacrylate	80-62-6	Australia OELs	TWA(8 hours):208 mg/m3(50 ppm);STEL(15 minutes):416 mg/m3(100 ppm)	SKIN

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

Australia OELs : Australia. Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment CMRG : Chemical Manufacturer's Recommended Guidelines

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

Sen: Sensitiser

Sk: Absorption through the skin may be a significant source of exposure.

8.2. Exposure controls

8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation 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. Note: Nitrile gloves may be worn over polymer laminate gloves to improve dexterity. Gloves made from the following material(s) are recommended: Polymer laminate

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

Select and use gloves according to AS/NZ 2161.

Respiratory protection

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

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

For questions about suitability for a specific application, consult with your respirator manufacturer. Select and use respirators according to AS/NZS 1715. Respirators should comply with AS/NZS 1716 performance specifications. For information about respirators, call 3M on 1800 024 464.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Paste
Colour	Brown
Odour	Methacrylate
Odour threshold	No data available.
рН	Not applicable.
Melting point/Freezing point	Not applicable.
Boiling point/Initial boiling point/Boiling range	>=37.8 °C
Flash point	>=10 °C [Test Method:Closed Cup]
Evaporation rate	No data available.
Flammability (solid, gas)	Not applicable.
Flammable Limits(LEL)	No data available.
Flammable Limits(UEL)	No data available.
Vapour pressure	No data available.
Vapor Density and/or Relative Vapor Density	No data available.

Density	1.01 g/ml
Relative density	1.01 [<i>Ref Std</i> :WATER=1]
Water solubility	Nil
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/Kinematic Viscosity	12,000 - 18,000 mPa-s
Volatile organic compounds (VOC)	No data available.
Percent volatile	No data available.
VOC less H2O & exempt solvents	20.2 g/l [Details: when used as intended with Part A]
VOC less H2O & exempt solvents	2 % [Details: when used as intended with Part A]
Molecular weight	Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable.

10.3. Conditions to avoid

Heat. Sparks and/or flames.

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

10.5 Incompatible materials

Amines. Strong acids. Strong bases. Strong oxidising agents.

10.6 Hazardous decomposition products

Substance 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

May be harmful if inhaled. Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain. May cause additional health effects (see below).

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. May cause additional health effects (see below).

Additional Health Effects:

Prolonged or repeated exposure may cause target organ effects:

Olfactory effects: Signs/symptoms may include decreased ability to detect odours and complete loss of smell.

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 ATE >5,000
			mg/kg
Overall product	Inhalation-Vapour(4		No data available; calculated ATE >20 -
	hr)		=50 mg/l
Overall product	Ingestion		No data available; calculated ATE >5,000
			mg/kg
Methyl Methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
Methyl Methacrylate	Inhalation-Vapour (4	Rat	LC50 29 mg/l
	hours)		
Methyl Methacrylate	Ingestion	Rat	LD50 7,900 mg/kg
Acrylonitrile-Butadiene Polymers	Dermal	Rabbit	LD50 > 15,000 mg/kg
Acrylonitrile-Butadiene Polymers	Ingestion	Rat	LD50 > 30,000 mg/kg
2-hydroxyethyl methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
2-hydroxyethyl methacrylate	Ingestion	Rat	LD50 5,564 mg/kg
Polyolmethacrylate Phosphate Esters	Ingestion	Rat	LD50 > 5,000 mg/kg
Polyolmethacrylate Phosphate Esters	Dermal	similar health hazards	LD50 estimated to be $> 5,000 \text{ mg/kg}$
Fillers	Dermal	Rabbit	LD50 > 5,000 mg/kg
Fillers	Inhalation-Dust/Mist	Rat	LC50 > 0.691 mg/l
	(4 hours)		
Fillers	Ingestion	Rat	LD50 > 5,110 mg/kg
Hydroxypropyl Methacrylate	Dermal	Rabbit	LD50 > 5,000 mg/kg
Hydroxypropyl Methacrylate	Ingestion	Rat	LD50 > 11,200 mg/kg
Barium diboron tetraoxide	Dermal	Rabbit	LD50 > 2,000 mg/kg
Barium diboron tetraoxide	Inhalation-Dust/Mist	Rat	LC50 > 3.54 mg/l
	(4 hours)		
Barium diboron tetraoxide	Ingestion	Rat	LD50 530 mg/kg
Copper Naphthenates	Dermal	similar compounds	LD50 > 2,000 mg/kg
Copper Naphthenates	Ingestion	similar compounds	LD50 >300, < 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Methyl Methacrylate	Human and animal	Mild irritant
Acrylonitrile-Butadiene Polymers	Professional judgement	No significant irritation
2-hydroxyethyl methacrylate	Rabbit	Minimal irritation
Polyolmethacrylate Phosphate Esters	Not available	Irritant
Fillers	Rabbit	No significant irritation
Hydroxypropyl Methacrylate	Rabbit	Minimal irritation
Barium diboron tetraoxide	Rabbit	No significant irritation
Copper Naphthenates	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Methyl Methacrylate	Rabbit	Moderate irritant
Acrylonitrile-Butadiene Polymers	Professional judgement	No significant irritation
2-hydroxyethyl methacrylate	Rabbit	Moderate irritant
Polyolmethacrylate Phosphate Esters	Not available	Corrosive
Fillers	Rabbit	No significant irritation
Hydroxypropyl Methacrylate	Rabbit	Moderate irritant
Barium diboron tetraoxide	Rabbit	No significant irritation
Copper Naphthenates	In vitro data	No significant irritation

Skin Sensitisation

Name	Species	Value	
Methyl Methacrylate	Human and animal	Sensitising	
2-hydroxyethyl methacrylate	Human and animal	Sensitising	
Fillers	Human and animal	Not classified	
Hydroxypropyl Methacrylate	Human and animal	Sensitising	
Barium diboron tetraoxide	Guinea pig	Not classified	
Copper Naphthenates	Guinea pig	Not classified	

Respiratory Sensitisation

Name	Species	Value
Methyl Methacrylate	Human	Not classified

Germ Cell Mutagenicity

Name	Route	Value
Methyl Methacrylate	In vivo	Not mutagenic
2 2		<u>v</u>
Methyl Methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
2-hydroxyethyl methacrylate	In vivo	Not mutagenic
2-hydroxyethyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Fillers	In Vitro	Not mutagenic
Hydroxypropyl Methacrylate	In vivo	Not mutagenic
Hydroxypropyl Methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Barium diboron tetraoxide	In Vitro	Not mutagenic
Barium diboron tetraoxide	In vivo	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Methyl Methacrylate	Ingestion	Rat	Not carcinogenic
Methyl Methacrylate	Inhalation	Human and animal	Not carcinogenic
Fillers	Not specified.	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
Methyl Methacrylate	Inhalation	Not classified for	Mouse	NOAEL 36.9	
		male reproduction		mg/l	
Methyl Methacrylate Inhalation		Not classified for	Rat	NOAEL 8.3	during
		development		mg/l	organogenesis
2-hydroxyethyl	Ingestion	Not classified for	Rat	NOAEL	premating & during
methacrylate		female reproduction		1,000	gestation
				mg/kg/day	
2-hydroxyethyl	Ingestion	Not classified for	Rat	NOAEL	49 days
methacrylate		male reproduction		1,000	
				mg/kg/day	
2-hydroxyethyl	Ingestion	Not classified for	Rat	NOAEL	premating & during
methacrylate		development		1,000	gestation
				mg/kg/day	
Fillers	Ingestion	Not classified for	Rat	NOAEL 509	1 generation
		female reproduction		mg/kg/day	
Fillers	Ingestion	Not classified for	Rat	NOAEL 497	1 generation
		male reproduction		mg/kg/day	
Fillers	Ingestion	Not classified for	Rat	NOAEL	during
		development		1,350	organogenesis
				mg/kg/day	
Hydroxypropyl	Ingestion	Not classified for	Rat	NOAEL	premating into
Methacrylate		female reproduction		1,000	lactation
				mg/kg/day	
Hydroxypropyl	Ingestion	Not classified for	Rat	NOAEL	49 days
Methacrylate		male reproduction		1,000	
				mg/kg/day	
Hydroxypropyl	Ingestion	Not classified for	Rat	NOAEL	during gestation
Methacrylate		development		1,000	
				mg/kg/day	
Barium diboron	Ingestion	Toxic to female	Rat	NOAEL 800	90 days
tetraoxide		reproduction		mg/kg/day	
Barium diboron	Ingestion	Toxic to development	Rabbit	NOAEL 20	during
tetraoxide				mg/kg/day	organogenesis
Barium diboron	Ingestion	Toxic to male	Rat	NOAEL 350	90 days
tetraoxide		reproduction		mg/kg/day	

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Methyl Methacrylate	Inhalation	respiratory irritation	May cause respiratory irritation	Human	NOAEL Not available	occupational exposure
Polyolmethacr ylate Phosphate Esters	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for	similar health hazards	NOAEL Not available	

			classification			
Hydroxyprop yl Methacrylate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	similar health hazards	NOAEL Not available	
Barium diboron tetraoxide	Ingestion	nervous system	Not classified	Rat	NOAEL 200 mg/kg	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Methyl Methacrylate	Dermal	peripheral nervous system	Not classified	Human	NOAEL Not available	occupational exposure
Methyl Methacrylate	Inhalation	olfactory system	Causes damage to organs through prolonged or repeated exposure	Human	NOAEL Not available	occupational exposure
Methyl Methacrylate	Inhalation	kidney and/or bladder	Not classified	Multiple animal species	NOAEL Not available	14 weeks
Methyl Methacrylate	Inhalation	liver	Not classified	Mouse	NOAEL 12.3 mg/l	14 weeks
Methyl Methacrylate	Inhalation	respiratory system	Not classified	Human	NOAEL Not available	occupational exposure
Fillers	Inhalation	respiratory system silicosis	Not classified	Human	NOAEL Not available	occupational exposure
Hydroxyprop yl Methacrylate	Inhalation	blood	Not classified	Rat	NOAEL 0.5 mg/l	21 days
Hydroxyprop yl Methacrylate	Ingestion	hematopoietic system heart endocrine system liver immune system nervous system kidney and/or bladder	Not classified	Rat	NOAEL 1,000 mg/kg/day	41 days
Barium diboron tetraoxide	Ingestion	hematopoietic system liver heart skin endocrine system bone, teeth, nails, and/or hair immune system muscles nervous system eyes kidney and/or bladder respiratory system vascular system	Not classified	Rat	NOAEL 700 mg/kg/day	90 days

Aspiration Hazard

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

Exposure Levels

Refer Section 8.1 Control Parameters of this Safety Data Sheet.

Interactive Effects

Not determined.

SECTION 12: Ecological information

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

12.1. Toxicity

Acute aquatic hazard:

GHS Acute 3: Harmful to aquatic life.

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
Methyl	80-62-6	Green algae	Experimental	72 hours	EC50	>110 mg/l
Methacrylate						
Methyl Methacrylate	80-62-6	Rainbow trout	Experimental	96 hours	LC50	>79 mg/l
Methyl Methacrylate	80-62-6	Water flea	Experimental	48 hours	EC50	69 mg/l
Methyl Methacrylate	80-62-6	Green algae	Experimental	72 hours	NOEC	110 mg/l
Methyl Methacrylate	80-62-6	Water flea	Experimental	21 days	NOEC	37 mg/l
Methyl Methacrylate	80-62-6	Activated sludge	Experimental	30 minutes	EC20	150 mg/l
Methyl Methacrylate	80-62-6	Soil microbes	Experimental	28 days	NOEC	>1,000 mg/kg (Dry Weight)
Acrylonitrile- Butadiene Polymers	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
2-hydroxyethyl methacrylate	868-77-9	Turbot	Analogous Compound	96 hours	LC50	833 mg/l
2-hydroxyethyl methacrylate	868-77-9	Fathead minnow	Experimental	96 hours	LC50	227 mg/l
2-hydroxyethyl methacrylate	868-77-9	Green algae	Experimental	72 hours	EC50	710 mg/l
2-hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	48 hours	EC50	380 mg/l
2-hydroxyethyl methacrylate	868-77-9	Green algae	Experimental	72 hours	NOEC	160 mg/l
2-hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	21 days	NOEC	24.1 mg/l
2-hydroxyethyl methacrylate	868-77-9	N/A	Experimental	16 hours	EC0	>3,000 mg/l
2-hydroxyethyl methacrylate	868-77-9	N/A	Experimental	18 hours	LD50	<98 mg per kg of bodyweight
Fillers	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Barium diboron tetraoxide	13701-59-2	Activated sludge	Experimental	3 hours	NOEC	100 mg/l
Barium diboron tetraoxide	13701-59-2	Green algae	Experimental	72 hours	EC50	7.8 mg/l

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Barium diboron tetraoxide	13701-59-2	Rainbow trout	Experimental	96 hours	LC50	62 mg/l
Barium diboron tetraoxide	13701-59-2	Water flea	Experimental	48 hours	EC50	20.3 mg/l
Barium diboron tetraoxide	13701-59-2	Green algae	Experimental	72 hours	NOEC	1.1 mg/l
Hydrotreated light paraffinic distillates (petroleum)	64742-55-8	Fathead minnow	Estimated	96 hours	LL50	>100 mg/l
Hydrotreated light paraffinic distillates (petroleum)	64742-55-8	Water flea	Estimated	48 hours	EL50	>100 mg/l
paraffinic distillates (petroleum)	64742-55-8	Green algae	Estimated	72 hours	NOEL	100 mg/l
Hydrotreated light paraffinic distillates (petroleum)		Water flea	Estimated	21 days	NOEC	10 mg/l
Hydroxypropyl Methacrylate	27813-02-1	Bacteria	Experimental	N/A	EC10	1,140 mg/l
Hydroxypropyl Methacrylate	27813-02-1	Golden Orfe	Experimental	48 hours	EC50	493 mg/l
Hydroxypropyl Methacrylate	27813-02-1	Green algae	Experimental	72 hours	EC50	>97.2 mg/l
Hydroxypropyl Methacrylate	27813-02-1	Water flea	Experimental	48 hours	EC50	>143 mg/l
Hydroxypropyl Methacrylate	27813-02-1	Green algae	Experimental	72 hours	NOEC	97.2 mg/l
Hydroxypropyl Methacrylate	27813-02-1	Water flea	Experimental	21 days	NOEC	45.2 mg/l
Urethane acrylate oligomer	Trade Secret	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Polyolmethacrylate Phosphate Esters	95175-93-2	N/A	Data not available or insufficient for classification	N/A	N/A	N/A
Copper Naphthenates	1338-02-9	Green algae	Estimated	72 hours	EC50	0.629 mg/l
Copper Naphthenates	1338-02-9	Water flea	Estimated	48 hours	EC50	0.0756 mg/l
Copper Naphthenates	1338-02-9	Zebra Fish	Estimated	96 hours	LC50	0.0702 mg/l
Copper Naphthenates	1338-02-9	Algae or other aquatic plants	Estimated	N/A	NOEC	0.132 mg/l
Copper Naphthenates	1338-02-9	Fathead minnow	Estimated	32 days	EC10	0.0354 mg/l
Copper Naphthenates	1338-02-9	Water flea	Estimated	21 days	NOEC	0.0756 mg/l

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Methyl Methacrylate	80-62-6	Experimental Biodegradation	14 days	BOD	94 %BOD/ThOD	OECD 301C - MITI test (I)
Acrylonitrile- Butadiene Polymers	Trade Secret	Data not available- insufficient	N/A	N/A	N/A	N/A
2-hydroxyethyl methacrylate	868-77-9	Experimental Biodegradation	28 days	BOD	84 %BOD/COD	OECD 301D - Closed bottle test
2-hydroxyethyl methacrylate	868-77-9	Experimental Hydrolysis		Hydrolytic half-life basic pH	10.9 days (t 1/2)	OECD 111 Hydrolysis func of pH
Fillers	Trade Secret	Data not available-	N/A	N/A	N/A	N/A

		insufficient				
Barium diboron tetraoxide	13701-59-2	Data not available- insufficient	N/A	N/A	N/A	N/A
Hydrotreated light paraffinic distillates (petroleum)	64742-55-8	Estimated Biodegradation	28 days	CO2 evolution	22 %CO2 evolution/THCO2 evolution	OECD 301B - Modified sturm or CO2
Hydroxypropyl Methacrylate	27813-02-1	Experimental Biodegradation	28 days	BOD	81 %BOD/ThOD	OECD 301C - MITI test (I)
Urethane acrylate oligomer	Trade Secret	Data not available- insufficient	N/A	N/A	N/A	N/A
Polyolmethacrylate Phosphate Esters	95175-93-2	Data not available- insufficient	N/A	N/A	N/A	N/A
Copper Naphthenates	1338-02-9	Data not available- insufficient	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	80-62-6	Experimental Bioconcentration		Log Kow	1.38	OECD 107 log Kow shke flsk mtd
Acrylonitrile- Butadiene Polymers	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
2-hydroxyethyl methacrylate	868-77-9	Experimental Bioconcentration		Log Kow	0.42	OECD 107 log Kow shke flsk mtd
Fillers	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Barium diboron tetraoxide	13701-59-2	Experimental Bioconcentration		Log Kow	-0.70	
Hydrotreated light paraffinic distillates (petroleum)	64742-55-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Hydroxypropyl Methacrylate	27813-02-1	Experimental Bioconcentration		Log Kow	0.97	
Urethane acrylate oligomer	Trade Secret	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Polyolmethacrylate Phosphate Esters	95175-93-2	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Copper Naphthenates	1338-02-9	Estimated BCF - Fish	42 days	Bioaccumulation factor	≤27	OECD305-Bioconcentration

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 waste product in a permitted industrial waste facility.

SECTION 14: Transport Information

Australian Dangerous Goods Code (ADG) - Road/Rail Transport UN No.: UN1133 Proper shipping name: ADHESIVES Class/Division: 3 Sub Risk: Not applicable. Packing Group: II Special Instructions: Limited quantity may apply Hazchem Code: •3YE IERG: 14

International Air Transport Association (IATA) - Air Transport UN No.: UN1133 Proper shipping name: ADHESIVES Class/Division: 3 Sub Risk: Not applicable. Packing Group: II

International Maritime Dangerous Goods Code (IMDG)- Marine Transport UN No.: UN1133 Proper shipping name: ADHESIVES Class/Division: 3 Sub Risk: Not applicable. Packing Group: II Marine Pollutant: Not applicable. Special Instructions: Limited quantity may apply

SECTION 15: Regulatory information

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

Australian Inventory Status:

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

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

SECTION 16: Other information

Revision information:

Complete document review.

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

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

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