



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™ ESPE™ Adper™ Single Bond 2

Product Identification Numbers

70-2010-5196-1 AH-0105-8146-2

1.2. Recommended use and restrictions on use

Recommended use

Dental Product, ADHESIVE

For use only by dental professionals.

Restrictions on use

For use by dental professionals 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

Flammable Liquid: Category 2.

Skin Sensitizer: 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 |

Pictograms



Hazard statements

H225 Highly flammable liquid and vapour.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

Precautionary statements

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P240 Ground/bond container and receiving equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P233 Keep container tightly closed.
P241 Use explosion-proof electrical/ventilating/lighting equipment.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P280B Wear protective gloves and eye/face protection.
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.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P312 Call a POISON CENTRE or doctor/physician if you feel unwell.
P370 + P378G In case of fire: Use a fire fighting agent suitable for flammable liquids such as dry chemical or carbon dioxide to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with applicable

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local/regional/national/international regulations.

2.3. Other assigned/identified product hazards

Although ethyl alcohol is classified as a central nervous system depressant, exposures associated with this health effect are not expected during normal, intended use of this product.

2.4. Other hazards which do not result in classification

May be harmful if swallowed.

May be harmful in contact with skin.

Causes mild skin irritation. Causes eye irritation. Harmful to aquatic life.

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	CAS Nbr	% by Weight
Ethanol	64-17-5	25 - 35
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	1565-94-2	10 - 20
SILANE TREATED SILICA	None	10 - 20
2-hydroxyethyl methacrylate	868-77-9	5 - 15
Glycerol 1, 3-dimethacrylate	1830-78-0	5 - 10
Copolymer of acrylic and itaconic acids	25948-33-8	5 - 10
Water	7732-18-5	< 5
Diurethane dimethacrylate	72869-86-4	1 - 5
Diphenyliodonium hexafluorophosphate	58109-40-3	< 1
ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB)	10287-53-3	< 1

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

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

Skin contact

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

Eye contact

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

If swallowed

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

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

See Section 11.1. Information on toxicological effects.

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

Not applicable

SECTION 5: Fire-fighting measures

5.1. 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.

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.

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.

6.3. Methods and material for containment and cleaning up

Contain spill. 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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

A no-touch technique is recommended. If skin contact occurs, wash skin with soap and water. Acrylates may penetrate commonly-used gloves. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. 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 in a well-ventilated place. Keep cool. Keep container tightly closed. Store away from heat. Store away from acids. Store away from oxidising agents.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	Additional comments
Ethanol	64-17-5	Australia OELs	TWA(8 hours):1880 mg/m3(1000 ppm)	
Ethanol	64-17-5	ACGIH	STEL:1000 ppm	A3: Confirmed animal carcinogen.

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 in a well-ventilated area.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

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

Safety glasses with side shields.

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

Skin/hand protection

See Section 7.1 for additional information on skin protection.

Respiratory protection

None required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid.
Specific Physical Form:	Liquid.
Appearance/Odour	Slight acrylate odour, white to clear
Odour threshold	No data available.
pH	No data available.
Melting point/Freezing point	Not applicable.
Boiling point/Initial boiling point/Boiling range	78 °C
Flash point	18.5 °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.
Vapour density	No data available.
Density	1.075 g/ml
Relative density	1.075 [Ref Std: WATER=1]
Water solubility	Negligible
Solubility- non-water	No data available.
Partition coefficient: n-octanol/water	Not applicable.
Autoignition temperature	410 °C
Decomposition temperature	No data available.
Viscosity	No data available.
Molecular weight	No data available.
Percent volatile	No data available.

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

Heat.

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>	<u>Condition</u>
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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

Exposures needed to cause the following health effect(s) are not expected during normal, intended use:

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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

May be harmful in contact with skin.

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

Moderate eye irritation: Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Ingestion

May be harmful if swallowed.

Gastrointestinal irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhoea. May cause additional health effects (see below).

Additional Health Effects:**Single exposure may cause target organ effects:**

Exposures needed to cause the following health effect(s) are not expected during normal, intended use:

Central nervous system (CNS) depression: Signs/symptoms may include headache, dizziness, drowsiness, incoordination, nausea, slowed reaction time, slurred speech, giddiness, and unconsciousness.

Additional information:

This product contains ethanol. Alcoholic beverages and ethanol in alcoholic beverages have been classified by the International Agency for Research on Cancer as carcinogenic to humans. There are also data associating human consumption of alcoholic beverages with developmental toxicity and liver toxicity. Exposure to ethanol during the foreseeable use of this product is not expected to cause cancer, developmental toxicity, or liver toxicity.

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Overall product	Ingestion		No data available; calculated ATE _{2,000 - 5,000 mg/kg}
Overall product	Dermal	Rabbit	LD ₅₀ > 2,000 mg/kg
Ethanol	Dermal	Rabbit	LD ₅₀ > 15,800 mg/kg
Ethanol	Inhalation-Vapour (4 hours)	Rat	LC ₅₀ 124.7 mg/l
Ethanol	Ingestion	Rat	LD ₅₀ 17,800 mg/kg
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Ingestion		LD ₅₀ estimated to be 2,000 - 5,000 mg/kg
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Dermal	Professional judgement	LD ₅₀ estimated to be 2,000 - 5,000 mg/kg
SILANE_TREATED SILICA	Dermal	Rabbit	LD ₅₀ > 5,000 mg/kg
SILANE_TREATED SILICA	Inhalation-Dust/Mist (4 hours)	Rat	LC ₅₀ > 0.691 mg/l
SILANE_TREATED SILICA	Ingestion	Rat	LD ₅₀ > 5,110 mg/kg
2-hydroxyethyl methacrylate	Dermal	Rabbit	LD ₅₀ > 5,000 mg/kg
2-hydroxyethyl methacrylate	Ingestion	Rat	LD ₅₀ 5,564 mg/kg
Glycerol 1, 3-dimethacrylate	Ingestion	similar compounds	LD ₅₀ 300-2000 mg/kg
Copolymer of acrylic and itaconic	Ingestion	Rat	LD ₅₀ > 5,000 mg/kg

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acids			
Copolymer of acrylic and itaconic acids	Dermal	similar health hazards	LD50 estimated to be > 5,000 mg/kg
Diurethane dimethacrylate	Dermal	Professional judgement	LD50 estimated to be > 5,000 mg/kg
Diurethane dimethacrylate	Ingestion	Rat	LD50 > 5,000 mg/kg
Diphenyliodonium hexafluorophosphate	Ingestion	Rat	LD50 32 mg/kg
ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB)	Dermal	Rat	LD50 > 2,000 mg/kg
ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB)	Ingestion	Rat	LD50 > 2,000 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Ethanol	Rabbit	No significant irritation
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Not available	Minimal irritation
SILANE TREATED SILICA	Rabbit	No significant irritation
2-hydroxyethyl methacrylate	Rabbit	Minimal irritation
Diphenyliodonium hexafluorophosphate	Rabbit	No significant irritation
ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB)	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Ethanol	Rabbit	Moderate irritant
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Not available	Moderate irritant
SILANE TREATED SILICA	Rabbit	No significant irritation
2-hydroxyethyl methacrylate	Rabbit	Moderate irritant
Diphenyliodonium hexafluorophosphate	Rabbit	Mild irritant
ETHYL 4-DIMETHYL AMINO BENZOATE (EDMAB)	Rabbit	Mild irritant

Skin Sensitisation

Name	Species	Value
Ethanol	Human	Some positive data exist, but the data are not sufficient for classification
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Guinea pig	Sensitising
SILANE TREATED SILICA	Human and animal	Not sensitizing
2-hydroxyethyl methacrylate	Human and animal	Sensitising
Diurethane dimethacrylate	Guinea pig	Sensitising

Respiratory Sensitisation

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

Germ Cell Mutagenicity

Name	Route	Value
Ethanol	In Vitro	Some positive data exist, but the data are not sufficient for classification
Ethanol	In vivo	Some positive data exist, but the data are not

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		sufficient for classification
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
SILANE TREATED SILICA	In Vitro	Not mutagenic
2-hydroxyethyl methacrylate	In vivo	Not mutagenic
2-hydroxyethyl methacrylate	In Vitro	Some positive data exist, but the data are not sufficient for classification
Diphenyliodonium hexafluorophosphate	In Vitro	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Ethanol	Ingestion	Multiple animal species	Some positive data exist, but the data are not sufficient for classification
SILANE_TREATED SILICA	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
Ethanol	Inhalation	Not toxic to development	Rat	NOAEL 38 mg/l	during gestation
Ethanol	Ingestion	Some positive developmental data exist, but the data are not sufficient for classification	Rat	NOAEL 5,200 mg/kg/day	prematuring & during gestation
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Ingestion	Not toxic to female reproduction	Mouse	NOAEL 0.8 mg/kg/day	prematuring & during gestation
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Ingestion	Not toxic to male reproduction	Mouse	NOAEL 0.8 mg/kg/day	prematuring & during gestation
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	Ingestion	Not toxic to development	Mouse	NOAEL 0.8 mg/kg/day	prematuring & during gestation
SILANE_TREATED SILICA	Ingestion	Not toxic to female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
SILANE_TREATED SILICA	Ingestion	Not toxic to male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
SILANE_TREATED SILICA	Ingestion	Not toxic to development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
2-hydroxyethyl methacrylate	Ingestion	Not toxic to female reproduction	Rat	NOAEL 1,000 mg/kg/day	prematuring & during gestation
2-hydroxyethyl methacrylate	Ingestion	Not toxic to male reproduction	Rat	NOAEL 1,000 mg/kg/day	49 days
2-hydroxyethyl	Ingestion	Not toxic to	Rat	NOAEL	prematuring & during

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methacrylate		development		1,000 mg/kg/day	gestation
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Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Ethanol	Inhalation	central nervous system depression	May cause drowsiness or dizziness	Human	LOAEL 2.6 mg/l	30 minutes
Ethanol	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Human	LOAEL 9.4 mg/l	not available
Ethanol	Ingestion	central nervous system depression	May cause drowsiness or dizziness	Multiple animal species	NOAEL not available	
Ethanol	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 3,000 mg/kg	
Copolymer of acrylic and itaconic acids	Ingestion	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 5,000 mg/kg	
Diphenyliodonium hexafluorophosphate	Inhalation	respiratory irritation	Some positive data exist, but the data are not sufficient for classification	Not available	Irritation Equivocal	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Ethanol	Inhalation	liver	Some positive data exist, but the data are not sufficient for classification	Rabbit	LOAEL 124 mg/l	365 days
Ethanol	Inhalation	hematopoietic system immune system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 25 mg/l	14 days
Ethanol	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	LOAEL 8,000 mg/kg/day	4 months
Ethanol	Ingestion	kidney and/or bladder	Some positive data exist, but the data are not sufficient for classification	Dog	NOAEL 3,000 mg/kg/day	7 days
(1-methylethylid	Ingestion	endocrine system liver	All data are negative	Mouse	NOAEL 0.8 mg/kg/day	prematuring & during gestation

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ene)bis[4,1-phenyleneoxy (2-hydroxy-3,1-propanediyl)] bismethacrylate		nervous system kidney and/or bladder				
SILANE_TREATED SILICA	Inhalation	respiratory system silicosis	All data are negative	Human	NOAEL Not available	occupational exposure
Copolymer of acrylic and itaconic acids	Ingestion	endocrine system hematopoietic system liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 200 mg/kg/day	28 days
Copolymer of acrylic and itaconic acids	Ingestion	heart bone, teeth, nails, and/or hair immune system muscles nervous system eyes kidney and/or bladder respiratory system vascular system	All data are negative	Rat	NOAEL 2,000 mg/kg/day	28 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	Type	Exposure	Test endpoint	Test result
ETHYL 4-DIMETHYL AMINOBENZ	10287-53-3	Fathead minnow	Estimated	96 hours	LC50	8.8 mg/l

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OATE (EDMAB)						
Ethanol	64-17-5	Water flea	Experimental	48 hours	EC50	9,300 mg/l
Ethanol	64-17-5	Green algae	Experimental	96 hours	EC50	1,000 mg/l
Ethanol	64-17-5	Rainbow trout	Experimental	96 hours	LC50	42 mg/l
Ethanol	64-17-5	Water flea	Experimental	11 days	NOEC	9.6 mg/l
2-hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	48 hours	EC50	380 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	345 mg/l
2-hydroxyethyl methacrylate	868-77-9	Water flea	Experimental	21 days	NOEC	24.1 mg/l
2-hydroxyethyl methacrylate	868-77-9	Green Algae	Experimental	72 hours	NOEC	160 mg/l
Glycerol 1, 3-dimethacrylate	1830-78-0	Guppy	Experimental	96 hours	LC50	43.2 mg/l
Diurethane dimethacrylate	72869-86-4		Data not available or insufficient for classification			
SILANE_TREATED SILICA	None		Data not available or insufficient for classification			
(1-methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	1565-94-2		Data not available or insufficient for classification			
Copolymer of acrylic and itaconic acids	25948-33-8		Data not available or insufficient for classification			
Diphenyliodonium hexafluorophosphate	58109-40-3	Water flea	Experimental	48 hours	EC50	9.5 mg/l

12.2. Persistence and degradability

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
2-hydroxyethyl methacrylate	868-77-9	Experimental Hydrolysis		Hydrolytic half-life	10.9 days (t _{1/2})	Other methods
Copolymer of acrylic and itaconic acids	25948-33-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Water	7732-18-5	Data not available or insufficient for	N/A	N/A	N/A	N/A

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		classification				
SILANE_TREATED SILICA	None	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Diphenyliodonium hexafluorophosphate	58109-40-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
ETHYL 4-DIMETHYLAMINOBENZOATE (EDMAB)	10287-53-3	Estimated Biodegradation	28 days	BOD	29 % weight	OECD 301C - MITI test (I)
(1-methylethylene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate	1565-94-2	Estimated Biodegradation	28 days	BOD	33 % weight	OECD 301C - MITI test (I)
Glycerol 1, 3-dimethacrylate	1830-78-0	Experimental Biodegradation	28 days	BOD	84 % weight	OECD 301F - Manometric respirometry
Diurethane dimethacrylate	72869-86-4	Estimated Biodegradation	28 days	BOD	52 % weight	OECD 301C - MITI test (I)
Ethanol	64-17-5	Experimental Biodegradation	14 days	BOD	89 % weight	OECD 301C - MITI test (I)
2-hydroxyethyl methacrylate	868-77-9	Experimental Biodegradation	14 days	BOD	95 % weight	OECD 301C - MITI test (I)

12.3 : Bioaccumulative potential

Material	CAS Number	Test type	Duration	Study Type	Test result	Protocol
Diphenyliodonium hexafluorophosphate	58109-40-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Glycerol 1, 3-dimethacrylate	1830-78-0	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Copolymer of acrylic and itaconic acids	25948-33-8	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
SILANE_TREATED SILICA	None	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Water	7732-18-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
(1-	1565-94-2	Data not	N/A	N/A	N/A	N/A

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methylethylidene)bis[4,1-phenyleneoxy(2-hydroxy-3,1-propanediyl)] bismethacrylate		available or insufficient for classification				
Diurethane dimethacrylate	72869-86-4	Estimated Bioconcentration		Bioaccumulation factor	5	Estimated: Bioconcentration factor
ETHYL 4-DIMETHYL AMINOBENZOATE (EDMAB)	10287-53-3	Estimated Bioconcentration		Bioaccumulation factor	19	Estimated: Bioconcentration factor
Ethanol	64-17-5	Experimental Bioconcentration		Log Kow	-0.31	Other methods
2-hydroxyethyl methacrylate	868-77-9	Experimental Bioconcentration		Log Kow	0.47	Other methods

12.4. Mobility in soil

Please contact manufacturer for more details

12.5 Other adverse effects

Material	CAS Number	Ozone Depletion Potential	Global Warming Potential
ethyl alcohol	64-17-5	0	

SECTION 13: Disposal considerations**13.1. Disposal methods**

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

Incinerate in a permitted waste incineration 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: Excepted 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

Special Instructions: Excepted Quantity may apply

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: Forbidden by this mode of transport

SECTION 15: Regulatory information

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

Australian Inventory Status:

This product is regulated by the Therapeutics Goods Administration and is exempt from compliance with 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:

This SDS has been revised to follow the Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (Safe Work Australia, December 2011).

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